TRANSFORMATIONAL LEADERSHIP, JOB AUTONOMY AND ROLE-BREADTH SELF-EFFICACY: THEIR INFLUENCE ON PROACTIVE BEHAVIOUR IN ENTRY-LEVEL GRADUATE ROLES

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A dissertation submitted in partial fulfilment of the requirements for the award of the Degree of Masters in Social Science in Organisational Psychology

Faculty of Humanities
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2014

COMPULSORY DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works of other people has been attributed, cited and referenced.

Signature: _____ **Date:** _____

ACKNOWLEDGEMENTS

To my supervisor, Prof Suki Goodman, thank you for all your time and effort that you have contributed to this piece of work. Your continuous coaching and encouragement during the development of this dissertation increased my self-efficacy and competence to attain this goal. I am forever grateful.

To all the graduate employees who participated in my research and the organisations that assisted me in obtaining my sample, thank you. I appreciate your time and contribution towards this achievement.

ABSTRACT

This study investigated the model on the antecedents of proactive behaviour as identified by Den Hartog and Belschak (2012) within the context of entry-level graduate roles (n = 76). A survey was devised which included the use of a five-point Likert-type scale. It was then administered to graduates in entry-level roles in various industries in South Africa to measure the different variables stipulated by the model. When data was analysed, the results revealed that transformational leadership (inspirational), task-related role-breadth self-efficacy (RBSE), and people-related RBSE correlated significantly and positively with proactive behaviour. Transformational leadership (performance) and job autonomy obtained non-significant correlations with proactive behaviour. The results also revealed that job autonomy, task-related RBSE and people-related RBSE did not moderate the relationship between transformational leadership (inspirational or performance) and proactive behaviour. This meant that the display of transformational leadership did not lead to a significant increase in proactive behaviour in low autonomy, low RBSE situations or in high autonomy, high RBSE situations as hypothesised. The unique characteristics of entry-level graduate roles are highlighted by the study – the significance of this model on proactive behaviour in a general employee context potentially may not be relevant to a graduate context. The findings contribute towards research evidence on the development of proactive behaviour in entry-level graduate roles.

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OBJECTIVE OF THE RESEARCH

The objective of this research was to verify Den Hartog and Belschak's (2012) model on the antecedents of proactive behaviour in an entry-level graduate context. These researchers found that the display of transformational leadership lead to a significant increase in proactive behaviour in two contextual situations. These included high role-breadth self-efficacy (RBSE), high job autonomy situations and low RBSE, low job autonomy situations.

The research was conducted as existing studies have shown the importance of proactive behaviour for increased employee- and organisational performance. Graduates entering the job market may need to continuously develop their own competencies so they can constantly perform successfully in their roles, and consistently help their organisation to succeed. Proactive behaviour may be a key contributing factor to developing one's own competencies and achieving success in one's role.

CHAPTER 1: LITERATURE REVIEW

Introduction

This research investigated the influences of three variables: transformational leadership, job autonomy and role-breadth self-efficacy (RBSE) on proactive behaviour in entry-level graduate roles. Transformational leadership was identified as the independent variable and proactive behaviour as the dependent variable. Job autonomy and RBSE were classified as moderators in the relationship between transformational leadership and proactive behaviour. The three variables were considered to be antecedents of proactive behaviour in this dissertation.

Firstly, a literature review is provided to give the reader more detail regarding existing research on the studied variables. In the literature a rationale for the study of proactive behaviour is provided. This is followed by the available research including anecdotal evidence on the expectations of the attributes that employers deem important for graduates to obtain. Here the attributes relevant to this dissertation are discussed. A short discussion about how proactive behaviour can be facilitated in graduates is included.

Proactive behaviour is defined by identifying a number of researchers' contributions. In this section the model of Den Hartog and Belschak (2012) on the antecedents of proactive behaviour is presented in detail for the reader as this model and research forms the foundation of this dissertation. Next, the importance of proactive behaviour in relation to its impact on increased employee and organisational performance is presented. This is followed by a discussion of the antecedents of proactive behaviour relevant to this study and an exploration of how organisations can promote proactive behaviour. The literature review ends with a summary of the section and outlines the four research hypotheses tested in this study.

Context

Research on proactive behaviour has shown that it may be an important employee attribute for increased employee- and organisational performance (Frese & Fay, 2001; Parker, 2000). A key characteristic of proactive employees is that they continuously develop their own competencies so they can constantly perform successfully in their roles (Crant, 1995), and consistently help their organisation to succeed in volatile environments (Crant, 2000; Frese & Fay, 2001).

Displaying proactive behaviour may be important for graduates wanting to enter the job market. When South African students graduate, they aim to find professional employment. These graduates enter the job market with a qualification that will hopefully help them to perform successfully in their new professional roles. Though many South African graduates have obtained credible qualifications a gap still exists between the attributes developed by higher education institutions and those required by South African employers (Kruss, 2004).

Employers expect graduates to show attributes that go beyond the technical and functional skills of a specific job (Potgieter & Coetzee, 2013). Generic attributes that are transferable across professional roles are deemed as important for graduates to have developed by the time they exit university and seek employment (Bernstein & Osman, 2012; Chetty, 2012; Clanchy & Ballard, 1995; Coetzee, 2009, 2012). Griesel and Parker (2009) found that self-motivation and initiative - clustered together as one in their research - were considered by graduate employers as one of the key attributes for performance. Initiative is a construct that is similar to proactive behaviour, as will be discussed later in this chapter. This is the only research that alludes to the study of proactive behaviour within a graduate context. Anecdotal evidence from experts like HR professionals, and graduate line managers and coaches involved in graduate development in South African organisations suggests that one of the generic attributes is proactive behaviour and considered it a key attribute for graduates entering the job market. Proactive behaviour may be required by graduates to initiate and lead their own professional development and drive their own job performance as soon as is reasonably possible. They must actively seek to develop the skills and knowledge they need to be successful in their roles. Additionally, proactive behaviour may assist

in building the relevant skills and knowledge through the identification of and networking with key professionals in the respective businesses. Proactive behaviour may thus be required in various graduate professional roles across different functions as one of the key differentiators for effective employee performance.

The limited literature on proactive behaviour within the workplace focuses on the general employee population and suggests that proactive behaviour is important for employee and organisational performance (Den Hartog & Belschak, 2012; Frese & Fay, 2001; Parker, 2000). Little research exists on proactive behaviour as one of the key attributes for graduates. Some of the key generic graduate attributes considered important by employers include leadership, self-reliance, self-confidence, self-management and the ability to cope with uncertainty (Mabuza, 2012; Muldoon, 2009; Nguyen, Yoshinari & Shigeji, 2005; Shuttleworth, 2012; Stewart & Knowles, 2000). The literature on the generic attributes does not directly identify proactive behaviour as one of the key differentiators for effective performance. Griesel and Parker (2009), as mentioned above, conducted their research within the South African graduate context. This is the only research that has been found on proactive behaviour within a graduate context. Anecdotal evidence, although not as valuable as scientific research, also suggests the importance such research may have.

The question thus arises as to how proactive behaviour can be developed amongst this cohort when they are part of a graduate programme or occupying entry-level graduate roles. It is important that more research is conducted to investigate, among other issues, the importance of proactive behaviour with this cohort. An important objective of such a study should be the consideration of various factors that facilitate graduate proactive behaviour. Thus an investigation on the antecedents of entry-level graduate employee proactive behaviour could yield interesting results for graduate employers and assist in the development of graduate programmes and graduate development. The research may establish whether proactive behaviour in this cohort can be facilitated by various organisational factors. It may also provide insight into the recruitment and selection activities of graduate employers, provide insight to managers and coaches of graduate employees on creating the conditions required for graduate roles that translate to increased employee proactive behaviour.

It is important at this stage in the literature review to acknowledge that the research of Den Hartog and Belschak (2012) forms the foundation of this dissertation. Their research focused on both personal characteristics (RBSE) and two contextual factors (job autonomy and transformational leadership) in fostering proactive behaviour. These researchers provide a succinct and convincing model of the antecedents of proactive behaviour, as seen in figure 1. The pair conducted their research on proactive behaviour on the general employee population and for this dissertation the relevance of their research model was tested within the context of graduate employees. Their model is concise, yet still considers the complex nature of proactive behaviour. Furthermore it considers an individual characteristic, a characteristic of an individual's job context and leadership when predicting proactive behaviour. When considering researching proactive behaviour within a graduate context this model was also found to be the most suitable because it addresses the identified three key variables.

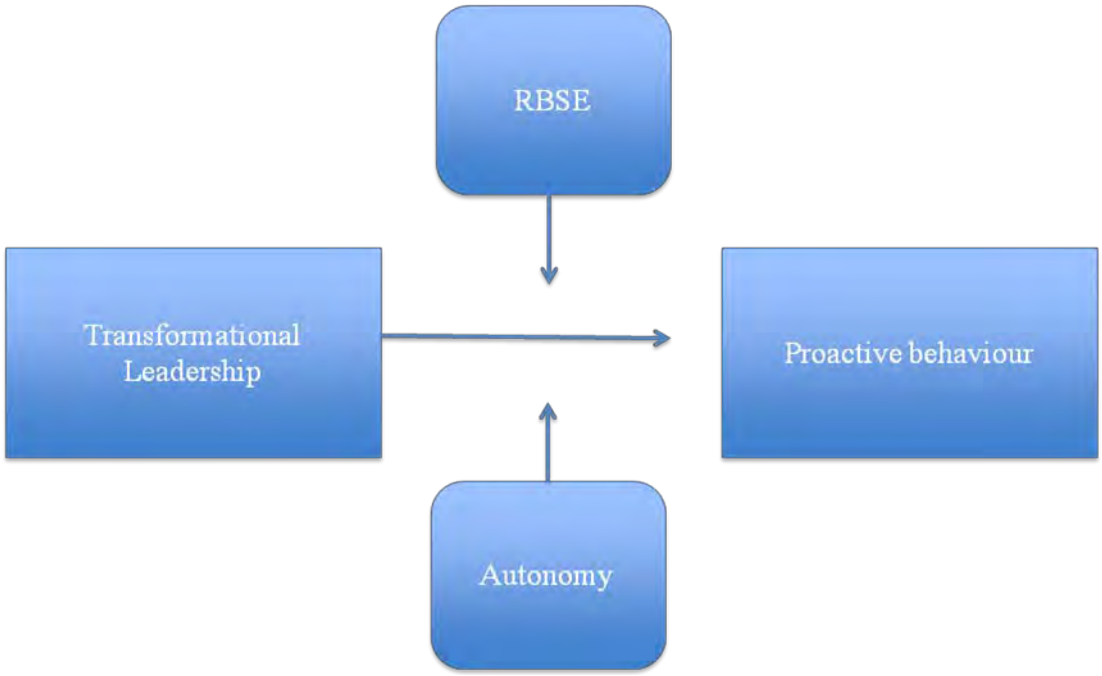

Figure 1. Den Hartog and Belschak's (2012) Model on the Antecedents of Proactive Behaviour.

Defining proactive behaviour

There are a number of definitions of proactive behaviour in academic literature. Belschak and Den Hartog (2010, p. 477) write that "proactive behaviours refer to anticipatory actions that employees take to affect or change themselves or their work environments". Similarly, Grant and Ashford (2008) defined proactive behaviour as behaviour that endeavours to alter the external environment and/or cause change in the individual who maintains hopefulness, in order to obtain a modified future. Belschak and Den Hartog's 'anticipatory action' resonates with Grant and Ashford's concept of 'hopefulness'. Crant (2000, p. 436) adds to these definitions by stating that proactive behaviour "involves challenging the status quo rather than passively adapting to present conditions". All of these conceptualisations of proactive behaviour include the notion that self-initiated action is taken by an individual to implement change.

Proactive behaviour diverges from mainstream 'reactive organisational behaviours' which include,amongst others, goal-setting and induction. For example, Parker, Bindl, and Strauss (2010) argue that under certain circumstances goal-setting can be a reactive organisational behaviour as in some instances it may emphasise management allocation of goals to employees rather than employees setting their own goals. Passive employee behaviour may also be emphasised in company induction processes where employees have to be trained to conduct a job in a prescribed manner (Frese & Fay, 2001). Thus, reactive behaviour as prescribed by organisational processes may lead to passive behaviour.

Whereas reactive behaviour involves prescribing actions, proactive behaviour focuses on allowing employees to initiate their own actions based on a number of predetermined goals. Examples of proactive behaviour described in literature include identifying future organisational problems and addressing it (Frese, Fay, Hilburger, Leng & Tag, 1997) and proactively seeking feedback to improve job performance (Crant, 2000). According to Crant (2000), proactive behaviour focuses on active work behaviours like actively seeking relevant information that can assist with job performance as opposed to the employee waiting for the information to arrive. Parker,

Bindl and Strauss (2010) identified 'active' goal-setting as one of the key components of proactive behaviour. They also identified that for an employee to be proactive they are required to modify themselves - for example, acquire a skill, or change their situation to change the scope of a project. Frese and Fay (2001) consider proactive behaviour to be visible in employees who develop their own work goals rather than sticking to only those work goals that have been assigned to them.

The conceptualisation of personal initiative and proactive behaviour – similar or different constructs

Proactive behaviour is sometimes referred to as personal initiative. Personal initiative is behaviour that is characterized by diligence, a self-starting manner of working and acts that exceeds official job demands (Frese, Fay, Hilburger, Leng, & Tag, 1997). In his extended definition of proactive behaviour Crant (2000, p. 436) uses the phrase "taking initiative" and argues that personal initiative behaviours are those that are perceived to be congruent with the organisation's mission. Frese et. al. (1997, p. 140) who conceptualised the term "personal initiative" classifies it as a "behaviour syndrome". This links well to Crant's view of proactive behaviour. Crant's model of the antecedents and consequences of proactive behaviour can be seen in figure 2. This model was constructed based on the range of conceptualisations on the construct. As can be seen in the model, personal initiative is classified as a proactive behaviour construct, which is considered as an individual characteristic. Individual characteristics in Crant's model are considered to be dispositions towards proactive behaviour. Personal initiative forms part of the antecedents of proactive behaviour. Crant further considers proactive behaviour to consist of general employee actions and behaviours that are dependent on environmental conditions. Lastly, proactive behaviours are considered to lead to a number of outcomes including increased employee performance. Grant and Ashford (2008, p. 8) allude to their views of proactive behaviour and personal initiative as being similar constructs in arguing that proactive behaviours are the display of personal initiative. This is why the terms are sometimes used interchangeably in the literature.

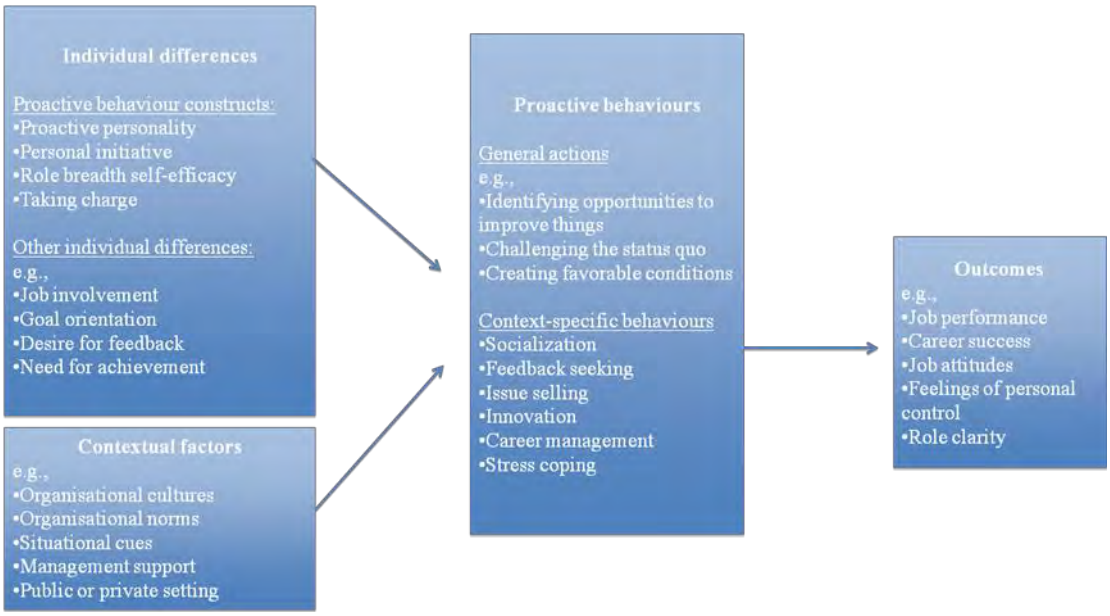

Figure 2. Crant's (2000, p. 438) Integrative Model of the Antecedents and Consequences of Proactive Behaviours

Though some researchers conceptualise proactive behaviour and personal initiative in similar ways, there is also evidence provided in the literature of viewing these as different constructs. One of the differences pertains to the view of personal initiative as an internal disposition and proactive behaviour as the display of such a disposition (observed actions). This view is provided in Crant's (2000) research on these constructs (see figure 2) where he separates personal initiative and proactive personality from proactive behaviour: personal initiative and proactive personality are viewed as intrinsic dispositional factors (antecedents of proactive behaviour) and proactive behaviour is the visible actions the individual pursues. He considers personal initiative and proactive personality to be mainly stable individual attributes, much like other personality factors. As can be seen in figure 2, Crant's model is comprehensive and considers a number of individual differences to be associated with proactive behaviour. In the same way Crant and Bateman (2000) separate proactive personality (internal disposition) from proactive behaviour (action).

The stance that the researcher of this work takes is the conceptualisation of proactive behaviour as employee actions rather than the consideration of personality factors. Furthermore, he considers proactive behaviour and personal initiative to be the same construct.

Proactive behaviour as observable actions

In an attempt to better understand proactive behaviour as observable actions researchers have deconstructed it to make sense of its different parts or requirements. Parker, et. al. (2010) identified three components or requirements of proactive behaviour: (1) the individual needs to initiate the behaviour, (2) the behaviour needs to be directed at causing change, and (3) the behaviour concentrates on achievement of a future goal. Kanfer and Ackerman (1989, as cited in Parker et. al., 2010, p. 830) consider proactive behaviour to happen in two consecutive processes: "goal generation" and "goal striving". Goal generation focuses on goal setting, visualising goals and planning for change. Goal striving refers to the persistence towards success and applying self-regulation mechanisms during this process. These two definitions are similar in that goal striving encapsulates all three aspects considered by Parker et. al. and the goal generation component includes elements of initiating behaviour and planning for change. The inclusion of self-regulatory behaviours in the latter definition adds an element of conscious behaviour adjustment to ensure achievement (Parker et. al., 2010).

Grant and Ashford's (2008, p. 10) definition of personal initiative agrees with the above conceptualisations of proactive behaviour. They defined it as three phases: "anticipation, planning, and action directed toward future impact". They argue that proactive employees visualise a desired future, plan for the process of achievement and implement the planned activities to bring about the desired future. Thus the three authors seem to have more or less similar conceptualisations of proactive behaviour.

As this dissertation focused on proactive behaviour as observable actions demonstrated within an organisational context, an appropriate conceptual and

operational definition needed to be identified. Frese, Kring, Soose and Zempel (1996, as cited in Frese, Fay, Hilburger, Leng & Tag (1997) provide a suitable conceptual definition for the researcher who, as discussed above, considers proactive behaviour and personal initiative to be similar constructs. They define personal initiative as "(1) consistent with the organisation's mission, (2) [having] a long term focus, (3)… goal directed and action oriented, (4)… persistent in the face of barriers and setbacks, and (5) self-starting and proactive" (Frese et. al., 1996 as cited in Frese et. al., 1997, p. 140). This definition considers personal initiative within the context of an organisation and therefore is found suitable as a conceptual definition of proactive behaviour considering the context of the study. Frese et. al. (1997) also provide a proactive behaviour scale in line with their conceptual definition of personal initiative. This is a seven-item scale which was used in the research to measure respondents' level of perceived proactive behaviour. This is the same scale that was used in the research conducted by Den Hartog and Belschak (2010) (see Appendix A).

The importance of proactive behaviour for increased employee and organisational performance

Importance of proactive behaviour in a changing environment

Organisations are faced with unstable environments and therefore require an employee population that is able to effectively deal with this uncertainty (Frese & Fay, 2001; Parker, 2000; Strauss, Griffin & Rafferty, 2009). Employees who display proactive behaviour are able to contribute effectively to a changing organisation as they can anticipate future environmental changes and the possible impact of these (Frese & Fay, 2001). Morrison and Phelps (1999) communicate a similar view with the concept of 'taking charge', which is a construct that includes elements of proactive behaviour. They define taking charge as employee attempts that are aimed at producing purposeful and practical changes to how work is conducted within the employee's role, business unit or organisation. Similarly to proactive behaviour,

taking charge is not a formal job requirement. However, the impact of this behaviour is of value to organisational improvement and performance (Morrison & Phelps, 1999). Bateman and Crant (1999) identified employee performance as being enhanced by employees' proactive behaviour. These researchers conducted a study with a sample of real estate agents, whose work performance was analysed in relation to their achievement on a self-reported proactive behaviour questionnaire. They found that those who reported higher levels of proactive behaviour outperformed those counterparts who reported lower levels of self-reported proactive behaviour. Froman (1997) suggests that, based on the evidence that employees' proactive behaviour contributes to increased organisational performance, organisations should focus on eliminating policies and procedures that reduce employees' ability to display such behaviour. Although Froman's suggestion is valid, Frese et. al. (1997) argue that proactive behaviour within organisations would require employees to persist with this behaviour within the boundaries set by organisational policies and procedures.

Proactive behaviour as a requirement for increased job performance

Through the literature review process research was found which showed that proactive behaviour positively correlates with job performance (Fuller & Marler, 2009; Crant, 1995; Baer & Frese, 2001). Belschak and Den Hartog (2010) have shown that both organisational and personal proactive behaviour have a significant positive relationship with employee performance. These researchers conducted a study that included self-rated and co-worker rated proactive behaviour and performance, amongst the other constructs they investigated. In their study they established a significant positive relationship between proactive behaviour aimed at organisational goals and employee performance ($\beta = 0.39$, $p < .01$). They also identified a significant positive relationship between what they classified as personal proactive behaviour and employee performance ($\beta = 0.36$, $p < .01$).

Proactive behaviour also seems to shape policies and procedures. Morrison and Phelps (1999) suggest that proactive behaviour often challenges existing ways of working. For example, a proactive employee working within a department may question a procedure that is preventing the department from providing better service

to its customers. Such an employee may challenge that procedure by identifying a way of completing work that will allow the department to increase its service to customers and communicate this to the relevant stakeholders. Evidence of proactive behaviours' influence on increased performance is also reflected in research on promotions and salary increases showing employees who are more proactive are more likely to receive favourable opportunities (Thompson 2005; Van Scotter, Motowidlo & Cross, 2000).

Proactive behaviour as a sought-after attribute by managers

According to Frese and Fay (2001) managers are no longer satisfied with passive employees who execute instructions through detailed guidance. Instead, they want employees who are actively involved in shaping their roles and job outcomes and contribute effectively and creatively to organisational objectives. Frese and Fay (2001, p. 136) use the phrase "active performance" to describe the notion that employees actively interpret allocated responsibilities to form their own personal short-term and longer-term goals. These goals are put into action to progress towards goal achievement and task completion. They argue that employees often have the ability to exceed standard performance requests, as evidenced when employees provide solutions to anticipated organisational problems.

Proactive behaviour has consequences for management supervision. Crant and Bateman (2000) argue that many contextual factors can increase proactive behaviour and therefore they identified a number of ways in which managers can cultivate such behaviour. Included in their suggestions are training that is focused on building the key skills inherent in proactive behaviour; training to increase self-efficacy; and assigning goals with broad parameters by focusing on the objectives rather than the approach to achieving the objectives. They also suggest that managers communicate the importance of proactive behaviour in achieving the organisation's strategy. These suggestions provide convincing evidence of the importance of proactive behaviour within organisations and therefore identifying the conditions that cultivate this behaviour may be important.

Antecedents of proactive behaviour

The literature on the antecedents of proactive behaviour provides a small number of models for this construct (Crant, 2000; Den Hartog & Belschak, 2012). Personal characteristics and contextual factors are discussed below. Specific reference is made to Crant's (2000, p. 438) model of the antecedents of proactive behaviour, as it provides an extensive view of the construct's antecedents. This model is provided to show the reader the complex nature of proactive behaviour. Thereafter the approach of this research project is described, looking at the antecedents of proactive behaviour according to Den Hartog and Belschak's (2012) study.

Personal characteristics/Individual differences

Proactive behaviour has been linked to both personal and contextual factors as antecedents. Parker, Williams and Turner (2006, p. 646) found that personal factors like proactive personality interact with "proactive cognitive motivational states" such as "flexible role orientation" to bring about proactive behaviour. Crant's model (see figure 2) separates individual differences from contextual factors as antecedents of proactive behaviours and individual differences are further divided into proactive behaviour constructs and other individual differences (Crant, 2000, p. 438). Proactive behaviour constructs include personal initiative and RBSE. Other individual differences include job involvement and desire for feedback.

According to Frese and Fay (2001) traditional, more conventional work cultures characterised by conservative decision-making may impede the process of turning self-efficacy into displayed initiative. They may be alluding to low autonomy environments. Frese and Fay argued that a change in the environment can only take effect when self-efficacy is processed into proactive behaviour. Parker (2000) presents a slightly different view to Frese and Fay by suggesting that RBSE is one of the factors that can promote proactive behaviour but that the organisational context within which the behaviour is displayed determines whether it will promote performance. She specifically identified roles based within interdependent

environments and characterised by less routine activities as the most suitable for proactive behaviour.

Self-efficacy alone does not bring about change in the work environment. Contextual factors impact on whether high self-efficacy produces the display of proactive behaviour (Frese & Fay, 2001). Frese and Fay identified one of the contextual elements that can positively influence personal initiative as organisations that have a culture which supports displayed initiative.

Contextual characteristics

Proactive behaviour is considered to have a number of contextual antecedents, such as Crant's (2000) model of proactive behaviour which singled out organisational norms and culture and management support. In Den Hartog and Belschak's (2012) study the researcher identified job autonomy and transformational leadership as contextual antecedents of proactive behaviour. Reviews of the literature on these three variables are detailed below.

Job Autonomy

According to Morrison (2006) employees who experience job autonomy feel an increased ability to control how their job tasks and the team and company goals will be achieved. Job autonomy is defined as the extent to which work provides considerable responsibility and independence to the employee in establishing the course of action towards task and job achievement (Hackman & Oldham, 1976).

Today, autonomy features as a key part of an employee's role and performance (Morgeson, Delaney-Klinger & Hemingway, 2005; Parker, 2000 & Weick, 1996 as cited in Grant & Ashford, 2008; Wang & Netemeyer, 2002). Grant and Ashford argued that employees may be told what they need to achieve but might not be told how they will achieve it. Grant and Ashford further argue that proactive behaviours

related to roles where goals are provided should be classified as strategies and goal-directed actions that the employee implements.

Autonomy may be a key variable in increasing proactive behaviour. Den Hartog and Belschak (2012) found that job autonomy is a key contributor towards increased proactive behaviour. More specifically, these researchers found that simply providing employees with increased job autonomy does not necessarily lead to increased proactive behaviour. Rather, interestingly, in their research they consider high and low levels of job autonomy to both have the ability to increase proactive behaviour but their research model is explicit in arguing that an increase in proactive behaviour cannot consider job autonomy in isolation. According to these researchers the level of autonomy that can be provided to employees to increase their proactive behaviour should be considered within the context of their level of RBSE. This construct is explained in detail below. Parker, Williams and Turner (2006) found that job autonomy is a direct key contributor to employee proactive behaviour. Morrison (2006) found autonomy to be related to prosocial rule breaking, which has been found to be associated with proactive behaviour. Grant and Ashford (2008) argue that increased job autonomy provides an appropriate context for employee proactive behaviour.

Role-breadth self-efficacy (RBSE)

Self-efficacy amplifies a person's confidence to reach achievement and their perception of mastery (Strauss, Griffin & Rafferty, 2009). Self-efficacy is the result of an individual's cognitive appraisal of his or her competence with regards to completing certain activities (Parker, 1998). RBSE is the result of a person's cognitive appraisal (confidence) regarding their capability to take on proactive, interpersonal and incorporative duties that go beyond the technical demands of their job (Parker, 1998). According to Crant (2000) RBSE and personal initiative conceptually relate to each other in that both constructs take cognisance of an individual's actions, which translates to a modified work context. Crant (2000) argued that RBSE is situation-dependent in that it gauges propensity towards proactive

behaviour as a reaction to work or contextual circumstances, viewing it as changeable.

RBSE can be impacted by the organisational context. According to Parker (1998), employee workplace experiences can impact their RBSE. There are a number of initiatives employers can take to improve employees' RBSE. For example, Parker (1998, p. 843) found that "membership of improvement groups, job enlargement, job enrichment" and improving the quality of job related information to employees including two-way employer-employee communication, was positively related to RBSE. Bandura (1998) also identified that managers can increase their employees' self-efficacy by conveying their belief in their staff's capability to achieve success.

It may be important to mention job enrichment within the ambit of job autonomy because of its link to self-efficacy. Enriching jobs, which increases the breadth of possible tasks that employees are able to execute, (Hackman & Oldman, 1976 as cited in Parker, 1998) increases the employee's level of autonomy, which has the ability to increase his or her RBSE (Buchanan & McCalman, 1989; Parker, 1998). Additionally, Parker (1998) argued that the employee's appraisal of his or her ability to control job outcomes will be increased. An increase in perceived control is positively associated with an increase in self-efficacy (Bandura, 1986; Bandura & Wood, 1989, as cited in Parker, 1998). Strauss, Griffin and Rafferty (2009) conducted a survey with employees working in the human resources function. In their research model they hypothesised that transformational leadership had a significant positive relationship with RBSE and that RBSE is significantly positively related to proactive behaviour. Their research found evidence of these relationships. Similar results have been found in Parker, Williams and Turner (2006). Den Hartog and Belschak (2012) found that individuals high in RBSE are more likely to display proactive behaviour than their low RBSE counterparts.

Given this research evidence on the importance of RBSE for proactive behaviour, it has also been found that some workplace initiatives do not promote an increase in RBSE. Parker (1998) conducted cross-sectional and longitudinal research on the relationship between training interventions that focused on relevant organisational practices, and employee RBSE. In this research she hypothesised for a positive

relationship to exist between appropriate training interventions and employee RBSE. The results of this research showed that no significant relationship existed between the 'relevant' training interventions and RBSE.

Transformational leadership

Transformational leadership has key characteristics that differentiate transformational leaders from other types of leaders. According to Den Hartog and Belschak (2012) transformational leaders are characterised by their ability to convey a large-scale vision to employees, setting increasingly high goals for employees, and facilitates achievement of these goals and the vision through constantly building employees' confidence. Through the literature review on transformational leadership, research on this variable seems to be lead by Bernard Bass. Some of his contributions are included in this section.

Transformational leadership has clear positive objectives. According to Bass (1991) the objective of transformational leadership is to translate employees' concern of self-interest to group or organisational-interest. He argued that this could be achieved through increasing employees' acknowledgement and appreciation of the team's or organisation's goals and mission. This objective can be attained when managers (1) inspire employees, (2) satisfy employees' emotional demands, and/or (3) provide cognitive stimulation to followers (Bass, 1991). The main characteristic of transformational leaders is charisma (Bass, 1991). Such leadership increases employees' belief that if they exert additional actions and effort, they will be able to achieve exceptional goals (Bass, 1991). Dvir, Eden, Avolio and Shamir (2002) found in their experimental study that the display of transformational leadership increased followers' motivation levels. Jung and Sosik (2002) studied the three variables effectiveness, cohesiveness and empowerment within the context of group work and found that the display of transformational leadership positively correlated with these variables. Bass, Avolio, Jung and Berson (2003) found that the display of transformational leadership predicted group performance.

The evidence of management and supervisory impact on proactive behaviour is mixed. Employee creativity has been associated with proactive behaviour and can be increased through high management support and reduced management control (Oldham & Cummings, 1996). However, research by Parker et. al. (2006) suggests that supervisory support does not significantly increase proactive employee behaviour. This result emerged even though these researchers focused on measuring management behaviours that aim to support employees to be self-driven and guide their own role and task achievement (Manz & Sims as cited in Parker et. al., 2006). In their study Parker et. al. (2006) also looked at other variables that may play a role in the development of proactive behaviour. These included job autonomy, an employee's trust in their colleagues and proactive personality. All three variables were found to be significant in the development of proactive behaviours. The researchers argued that their results might suggest that supervisors may be important in the development of job autonomy when considering increasing proactive behaviour and those behaviours outside of this scope, i.e. supervisor support may not have a significant effect.

Despite the evidence presented by Parker et. al. (2006) the positive effects of transformational leadership are well documented in the literature and provides support for testing the value of this behaviour in the development of proactive behaviour. A transformational leadership approach seems to be able to provide promising results for managers wanting to improve employees' proactive behaviour. According to Belschak and Den Hartog (2010) the display of transformational leadership is one of the key variables required to increase proactive behaviour in employees. Griffin, Parker and Mason (2010) found that leaders who communicated a clear vision to their employees increased the proactive behaviour of those employees with high RBSE. Bass (1991) also found that transformational leadership increased employee attempts to achieve work goals. More specifically, Belschak and Den Hartog (2010, p. 480) found that "only organisational and inter-personal proactive behaviour were significantly related to transformational leadership" compared with proactive behaviour aimed at individual (personal) work goals. This makes sense as transformational leadership seeks to concentrate employees on team or organisational-based targets and goals as opposed to individual self-centered goals (Bass, 1985 as

cited in Belschak & Den Hartog, 2010). According to Bass the effects of transformational leadership lead employees to regard their leaders as effective.

Transformational leadership, autonomy and role-breadth self-efficacy (RBSE)

The Den Hartog and Belschak (2012) study's theoretical model, which this research aims to verify, shows that transformational leadership plays a key role in promoting proactive behaviour when there is a match between the level of autonomy (context) and level of RBSE (personal factor) (see figure 3). Den Hartog and Belschak found that for the display of transformational leadership to effectively contribute towards increasing employee proactive behaviour, low RBSE employees can be provided with a low job autonomy context. They explain that this is due to a low job autonomy context being perceived as non-threatening to individuals with low RBSE. The display of transformational leadership is thus perceived as encouraging within an environment that is classified by reduced risk of misreading the specific actions to take. This match between low RBSE and low job autonomy context allows proactive action to increase when transformational leadership is displayed. In the same way, they found that high RBSE and a high job autonomy context allow proactive action to increase when transformational leadership is displayed. However as can be seen in figure 4, when low RBSE individuals are provided with high autonomy in the jobs the display of transformational leadership is not expected to increase the employees' proactive behaviour.

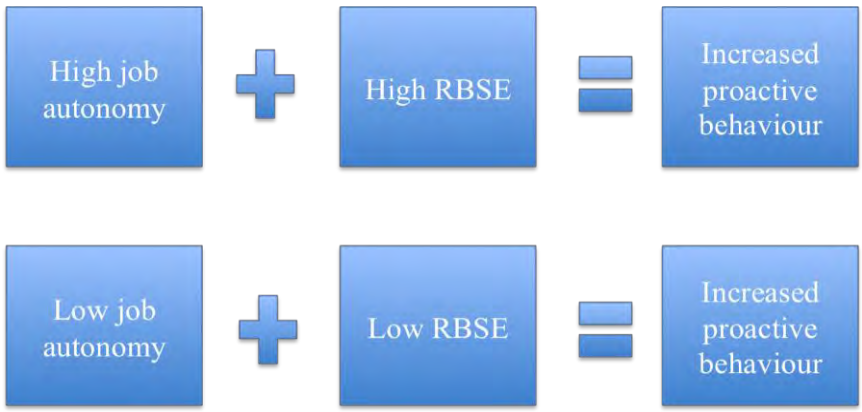

Figure 3. The Factors and Conditions (High or Low) that Contribute to Increased Proactive Behaviour when Transformational Leadership is Displayed (Den Hartog & Belschak, 2012).

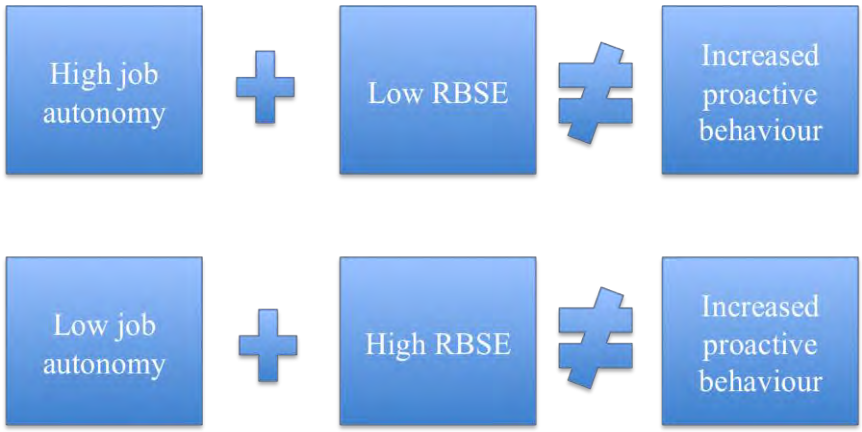

Figure 4. The Factors and Conditions (High or Low) that do not Contribute to Proactive Behaviour when Transformational Leadership is Displayed (Den Hartog & Belschak, 2012)

Transformational leadership seems to be ineffective when applied to low job autonomy high RBSE situations. Den Hartog and Belschak (2012) attribute this to the presence of high RBSE. They argue that individuals with high RBSE who work in a low autonomy context may not benefit from the display of transformational leadership as the low autonomy context provides constraints for the increase of proactive behaviour. Thus, the research suggests that at the attempt of increasing proactive behaviour of high RBSE employees that the display of transformational leadership may be ineffective if the employee's job autonomy is low. The act of transformational

leadership being made insignificant in the presence of high RBSE is contingent on the job context characterised by low autonomy (Den Hartog & Belschak, 2012).

Transformational leadership seems to not lead to proactive behaviour in high job autonomy low RBSE situations. Den Hartog and Belschak (2012) found that individuals with low RBSE did not increase their proactive behaviour when being exposed to transformational leadership in a high job autonomy context. The researchers argue that individuals low on RBSE who work in a high autonomy context may already feel challenged by the degree of responsibility that is present in their jobs. By adding transformational leadership their challenge within their role may be increased because of high expectations that are communicated by transformational leaders. This may be perceived as threatening and therefore may not increase their proactive behaviour. The researchers thus found that RBSE and autonomy play a key role in how individuals react to transformational leadership.

Organisational practices that can promote proactive behaviour

With research showing that organisations can experience positive consequences from employee proactive behaviour, it is important to consider circumstances that activate and improve this attribute. Many researchers argue that this attribute can be developed and that managers can play a key role in promoting this behaviour.

Recruitment and selection

As RBSE seems to play a key role in increasing proactive behaviour, Parker (1998) suggests that organisations should consider collecting information on an employee's level of self-efficacy during the recruitment process in order to make a decision about placement. Although it is not explicit in Parker's suggestion, taking the approach of Den Hartog and Belschak (2012) it would be useful to identify the level of autonomy available in a position when determining the level of RBSE that is required by the most suitable individual for the position during recruitment. Bateman and Crant

(1999) suggest that managers can assess an inclination towards behaving proactively during the recruitment process. They suggest that these measures include competency-based questions that assess candidates' past behaviour as well as self-reported questionnaires. Similar views are expressed by Parker, Williams and Turner (2006). Regarding the selection of teams, Frese and Fay (2001) argue that personal initiative may be a key factor in establishing high performance self-managed teams.

Career development and management of proactive employees

Seibert, Kraimer and Crant's (2001) research on the relationship between career success and proactive behaviour suggests that organisations should implement career management training that can facilitate enhanced employee proactive behaviour. They argue that the objectives of such training programmes could include the need for initiating skills development in line with career planning and developing a goal-setting orientation in order to facilitate proactive action. It makes sense that managers receive training on how to facilitate career planning discussions while their employees receive training on how to facilitate their own career development.

Parker (1998) suggests that because RBSE seems to have a key role in activating proactive behaviour managers can implement coaching for their staff to improve their RBSE and ultimately their level of proactive behaviour.

Morrison and Phelps (1999) suggest that top management can encourage proactive behaviour in their employee population by encouraging employees to provide feedback to top management and creating the appropriate channels to do so. Furthermore, they should behave in a way that reinforces such feedback behaviour.

Job Design

Although their research overall shows that increased job autonomy can foster increased proactive behaviour, Den Hartog and Belschak (2012) suggest that organisations may want to determine an employee's RBSE before deciding whether to provide an employee with increased job autonomy and transformational leadership. The researchers suggest that managers should take care to increase RBSE (for those lacking it) and transformational leadership when wanting to provide employees with increased job autonomy.

Parker et. al. (2006) suggest that one of the activities organisations should put effort into if they want to increase proactive behaviour in their employee population is redesigning the way work is completed so as to promote the appropriate conditions for increasing proactive behaviour. Bateman and Crant (1999) suggest that inflexibility in, amongst other, work goals that are too specific, job descriptions that are prescribed and narrow, limited resources that are allocated in silos, and a lack of decision-making can create conditions that limit the display of proactive behaviour.

The research evidence provided above has been conducted on the general employee population, not on graduates. This study aims to provide insight into the actions that employers can implement to foster proactive behaviour in graduates.

Summary

Proactive behaviour is aimed at causing change in the individual and/or the environment when the individual strives for a specific desired future. Proactive behaviour as a construct diverges from mainstream work behaviour in that it promotes self-starting behaviour focused on a predetermined future goal. Proactive behaviour has been associated with a number of other constructs like innovation, job performance and intrinsic motivation. Antecedents of proactive behaviour are classified as dispositional or situation-dependent.

It has been identified in this literature review that three variables are associated with an increase in employee proactive behaviour. These are autonomy, role-breadth self-efficacy and transformational leadership. Autonomy is positively associated with proactive behaviour in two ways: (1) a direct relationship: research shows that proactive behaviour is more likely to be displayed when employees experience high levels of autonomy in their jobs; and (2) an indirect relationship: it has also been shown that increased autonomy is positively associated with RBSE, which is associated with an increase in employee proactive behaviour. RBSE has a positive relationship with proactive behaviour and is affected by job autonomy. The research also reveals that autonomy and RBSE play a key role in assisting transformational leadership to be positively related to proactive behaviour. Based on this research the following hypotheses are proposed:

Hypothesis 1: Transformational leadership, job autonomy and RBSE are positively related to proactive behaviour.

Hypothesis 2: Autonomy moderates the relationship between transformational leadership and proactive behaviour in that in a high job autonomy context transformational leadership leads to increased proactive behaviour.

Hypothesis 3: RBSE moderates the relationship between transformational leadership and proactive behaviour in that high RBSE individuals display higher levels of proactive behaviour when exposed to transformational leadership.

Transformational leadership seems to only be related to increased proactive behaviour in a situation where both job autonomy and RBSE are low or when both job autonomy and RBSE are high. In cases of low job autonomy and high RBSE, transformational leadership has no effect because high RBSE acts as a substitute. In cases of high job autonomy and low RBSE, transformational leadership represents forceful and extreme behaviour that the employee finds threatening and so this type of leadership becomes ineffective. The fourth and final hypothesis tested in this dissertation is:

Hypothesis 4: Transformational leadership is positively related to employee proactive behaviour in low job autonomy low RBSE situations. Transformational leadership is positively related to employee proactive behaviour in high job autonomy high RBSE situations

Hypotheses one and four have been taken directly from Den Hartog and Belschak's (2012) research.

CHAPTER 2: METHOD

Research design

A quantitative cross-sectional research study was conducted with employees in entry-level graduate positions. The aim of the research was to verify the antecedents of proactive behaviour displayed by graduates in entry-level roles. A field survey was conducted and participants were asked to complete a self-administrated questionnaire. The survey that was sent out to the graduates and/or their company representatives requested that only graduates who started working for their employers between 2012 and 2014 complete the survey.

Sample and procedure

Purposive and snowballing sampling was applied. Organisations known to recruit graduate employees were contacted to request their participation in the study. The majority of these organisations were contacted through the assistance of the director of the South African Graduate Employers' Association (SAGEA), of which various graduate employer organisations are members. The researcher drafted an email to the South African graduate employers, which requested participation of their companies' graduates in the study. The email outlined the aim of the research and included a link to the online survey (see Appendix A). The director sent the request for participation to SAGEA's various member organisations. The researcher also utilised his personal contacts to obtain a number of graduates to complete his survey. These were graduates based within the organisation for which he worked. These graduates were also asked to provide details of their graduate friends and acquaintances so they could be contacted to participate. Various universities were also asked to send out an email to their recent graduates to participate.

Participants

Participants were graduates who were employed for three years or less in a company in South Africa. Participants were obtained from different industries, among them retail, Fast Moving Consumer Goods (FMCG), and manufacturing. The researcher aimed to make the survey highly anonymous and therefore did not ask participants information on the industry or the company that they worked for. Some participants emailed the researcher to ask about the study and confirmed that they had completed the questionnaire. This gave the researcher some information of the various industries that some of the participants were employed in. The same counts for information about the different job functions in which the participants worked - among them human resources, operations and marketing, amongst other. Again, a focus was placed on making the survey anonymous, so questions about the functions within which graduates worked were not included in the survey. The participants' demographic information is outlined below (see table 1).

A total of 138 responses ($N = 138$) were received. Only surveys where a total of 75% (39 out of 52) or more of the response questions were completed were included in the analyses. This constituted 76 ($n = 76$) completed surveys out of the 138 responses received. After the decision was made to include the 76 completed responses in the analyses, the leftover 62 responses were perused a second time to establish whether a possibility exists to include some of the responses. After inspection of the responses it was found that too many were missing and therefore the analyses could only proceed with the 76 responses. This constituted a 55% response rate for completed surveys. With a sample size of 76 and the use of purposive and snowballing sampling one of the limitations of this research was that the results could not be generalised to South Africa's graduate population. The size of the sample also compromised the reliability and validity of the subscales used, which is discussed later in this dissertation.

The anonymous respondents completed the survey voluntarily and received no reward for taking part. Table 1 shows the demographic information of the participants, which indicates that 63.2% were females. 68.4% of the respondents had worked for their employers for two years or less. Participants' tenures are presented in table 2.

Information on the position participants were employed in and the qualifications they possessed was not collected, as the research did not aim to include these in analyses.

Table 1

Demographic Information of Respondents

	Respondents	
Biographical variable	**n**	**%**
Gender		
Male	26	34.2
Female	48	63.2
Missing	2	2.63
Total	76	100
Racial group		
Black	22	28.9
Coloured	23	30.3
Indian	7	9.2
White	18	23.7
Mixed race	1	1.3
Other	1	1.3
Prefer not to answer	4	5.3
Total	76	100
Age		
23	11	14.5
24	18	23.7
25	18	23.7
26	9	11.8
27	6	7.9
28	3	3.9
30	3	3.9
31	1	1.3
Missing	7	9.2
Total	76	100

Table 2

Tenure of Respondents (Grouped in Years)

	Respondents	
Tenure (categories)	**Number of participants**	**Percentage (%)**
Less than 1 year	28	36.8
1-2 years	24	31.6
2-3 years	24	31.6
Total	76	100

Instrument

The survey was constructed using the University of Cape Town's Commerce Faculty's Qualtrics software. Only an online survey was utilised. A copy of the survey is included in Appendix A. The survey consisted of 52 questions in total, including demographic information. It included the following sections: (1) an introductory page, (2) four different subscales measuring perceptions of employee job autonomy, employee proactive behaviour, employee role-breadth self-efficacy (RBSE) and the extent to which their managers display transformational leadership and (3) a list of questions eliciting demographic information. The survey was conducted in English.

Den Hartog and Belschak (2012) in their research suggested a model for the relationship between the four variables and the direction of the various correlations. This model was used as the basis of this dissertation. Through conducting a literature review of the constructs personal initiative and proactive behaviour, it appeared that Den Hartog and Belschak's (2012) research provided the most comprehensive and succinct model of the antecedents of proactive behaviour. The authors have encouraged other researchers to consider taking their conceptual framework forward in a variety of contexts. The interest in the research topic and graduates led the researcher to conduct a similar study within a graduate context. Den Hartog and Belschak's (2012) work is thus not replicated because this research deviates from their study in numerous ways, among them the sample used and the survey questions that made up the final scale of measurement of the different variables. This study also only utilised self-rated items, where Den Hartog and Belschak (2012) used self-rated

and peer-rated items in their study 1 and manager-rated items in their study 2. Hypotheses two and three are also included to ascertain whether isolated moderating effects for job autonomy and RBSE exist.

In selecting the scale items, direction was taken from Den Hartog and Belschak (2012). The original sources of the items used in the four different subscales were consulted. The eight items for the job autonomy scale were taken directly from Lumpkin, Cogliser and Schneider (2009, p. 55). Four of these items were reversed scored items. The seven items for the proactive behaviour subscale were taken directly from Frese, Fay, Hilburger, Leng and Tag (1997, p. 161). The ten items that made up the RBSE subscale were taken directly from Parker (2000). In the original article the items were posed as questions. For this survey it was adapted to be read as statements with which the respondents agreed or disagreed on a five-point Likert-type scale. The 22 items that make up the transformational leadership subscale were taken from various sources. Eighteen items were directly taken from Bycio, Hackett and Allen (1995). Four items were taken from Bass & Avolio (1995, as cited in Callow, Smith, Hardy, Arthur and Hardy, 2009) – see Appendix A. All items were self-rated and were measured on a Likert-type scale (1 = strongly agree; 5 = strongly disagree).

The introductory page provided respondents with information about the objectives of the survey, informed them that their participation was voluntary and addressed issues of informed consent. It was made known that information collected would be only used for the purpose of the study and that no personal information or identifiers were collected in the survey, meaning participants' personal responses would remain anonymous. Participants were informed that they could withdraw from the study at any time and then encouraged to click on a link that would take them to the start of the survey. They were notified that clicking on the link would provide consent for their responses to be used as part of the research.

Job Autonomy

Job autonomy was measured by eight items as identified by Lumpkin, Cogliser and Schneider (2009, p. 55) (see Appendix A). These researchers constructed the items of

this scale by collecting items from various sources including Shane, Venkatarman and MacMillan (1995), Little (1988), Gulowsen (1972), Sprigg, Jackson and Parker (2000), and Hart (1991) (see Lumpkin et. al., 2009, p. 59). Lumpkin et. al. (2009) only found support for the use of four items out of the tested eight items from their scale. These four items include the following (Lumpkin et. al., 2009, p.57):

1. My firm supports the efforts of individuals and/or teams that work autonomously as compared with requiring individuals and/or teams to rely on senior managers to guide their work.
2. The managers of my firm believe that the best results occur when individuals and/or teams decide for themselves what business opportunities to pursue (rather than when the CEO and top managers provide the primary impetus for pursuing business opportunities).
3. In my firm, individuals and/or teams pursuing business opportunities make decisions on their own without constantly referring to their supervisors (instead of having to obtain approval from their supervisors before making decisions).
4. In my firm, the CEO and top management team (rather than employee initiatives and input) play a major role in identifying and selecting the entrepreneurial opportunities my firm pursues.

In their original article, Lumpkin et. al. (2009) do not provide the reliability coefficient obtained for this scale. The researcher contacted Tom Lumpkin (one of the researchers) to obtain the reliability coefficient for the scale, and he responded with a referral to Claudia Cogliser. The researcher contacted Cogliser to obtain the required information, but she did not reply. The researcher also used the popular search engine Google to obtain other studies that utilised the scale, but was unsuccessful.

Even though Lumpkin et. al. (2009) only found support for the four items listed above the researcher decided to include all eight items from their scale. The eight items were selected because the researcher wanted to establish his own scale based on an exploratory factor analysis (EFA). Additionally, Lumpkin et. al.'s (2009) sample consisted of undergraduate students at university who had some work experience. The researchers did not specify the type of work experience these participants had, i.e. whether it was professional or general work. The researcher thus decided to include

all eight items to administer it to his obtained sample, which consisted of graduates with professional work experience. As Lumpkin et al.'s (2009) final autonomy scale only consisted of four items, the researcher also included all eight items to ensure that enough items were used so as to increase the likelihood that the exploratory factor analysis would yield at least three items that load onto a factor – the eight items all had high face validity.

Some of the statements used the phrase 'top management', which the researcher found to refer to circumstances that might have been too removed from the immediate context of the graduate employees. These statements were subsequently changed and substituted with the word "manager" in order to tap into the graduate's immediate working relationship with his or her manager. In some statements the word 'firm' was also changed to 'organisation' or 'supervisor or line manager' as the latter may be more suitable for the South African context. An example of a question is "my firm supports the efforts of individuals and/or teams that work autonomously". The revised question was "my supervisor or line manager supports the efforts of individuals and/or teams that work autonomously". "My manager supports the efforts of individuals and/or teams that work autonomously" and "my manager expects individuals and/or teams pursuing business opportunities to justify their actions throughout the development process" were two more sample questions. As in the original article, four of the eight items were reversed scored items as is indicated in Appendix A.

Proactive behaviour

Proactive behaviour was investigated using a seven-item personal initiative scale identified by Frese, Fay, Hilburger, Leng and Tag (1997). The conceptualisation of proactive behaviour in this dissertation takes the personal initiative definition of Frese, Kring, Soose and Zempel (1996, p. 38 as cited in Frese, Fay, Hilburger, Leng, and Tag, 1997, p. 140). They define personal initiative, i.e. proactive behaviour as "(1) consistent with the organisation's mission, (2) [having] a long term focus, (3)… goal directed and action oriented, (4)… persistent in the face of barriers and setbacks,

and (5) self-starting and proactive". The seven-item personal initiative scale by Frese et. al. (1997) was utilised as it aligns well with the chosen conceptual definition of proactive behaviour. Belschak and Den Hartog (2010) found that their personal initiative items were appropriate for the measurement of proactive behaviour. "I actively confront problems" and "whenever something goes wrong, I search for a solution immediately" were two sample items (Frese et. al., 1997, p. 161). In their study Frese et. al (1997) found that the Cronbach's alpha for this seven-item scale was .84 ($N = 497$; $SD = 0.52$).

Role breadth self-efficacy (RBSE)

To measure RBSE, the 10-item scale from Parker (1998) was used and items were adapted to reflect statements. For example, one item was "how confident would you feel representing your work area in meetings with senior management?". This question was changed into the following statement: "I would feel confident in representing my work area in meetings with senior management". Agreement with all 10 statements was rated using a 5-point Likert-type scale (1 = completely agree, 5 = completely disagree). Another example of an item was "I would feel confident to write a proposal to spend money in my area" (Parker, 2000, p. 457). Parker (1998) reported a Cronbach's alpha of .95 for the scale. Nauta, Van Vianen, Van der Heijden, Van Dam and Willemsen (2009) used six items of Parker's (1998) seven-item scale and found a Cronbach's alpha of .85. All items of this scale can be viewed in Appendix A.

Transformational leadership

To measure the respondents' perceptions of the extent to which their managers demonstrated transformational leadership, a 22-item scale was constructed based on the dimensions of transformational leadership gathered from different sources. The researchers decided to construct a combination of questions together based on the face validity of the different items. No other researcher has used this subscale because it

was constructed and therefore no information is available on its reliability. Items 26 to 43 were a selection derived from Bycio, Allen and Hackett (1995, p. 473) from their charismatic leadership, individualised consideration and intellectual stimulation subscales that form part of their transformational leadership scale. All three subscales obtained high reliability coefficients, i.e. .97, .85, and .87 respectively (Bycio, et. al., 1995). The transformational leadership section of the scale from Bycio et. al. consisted of 29 items; however only 18 were selected for use in this research. These are well-established subscales from which the 18 items were selected. The researcher was concerned about length of the survey and therefore did not want to use all 29 items. The 18 were selected based on their face validity.

Items 44 to 47 were obtained from Bass and Avolio (1995, as cited in Callow, Smith, Hardy, Arthur & Hardy, 2009, p. 400). No reliability results were published by Callow et. al. (2009). Examples of questions include "my manager is an inspiration to us", "my manager makes me proud to be associated with him/her", and "my manager has a special gift for seeing what is really important for me to consider." See Appendix A for all the items.

Demographic information

Information about the respondents' age, sex, race, tenure and year during which their last degree was completed were obtained.

The survey was constructed and piloted with five employed graduates and their feedback provided the researcher with ideas about how to refine the survey. The suggested improvements were implemented.

Data Collection Procedure

The research proposal and the survey were submitted to the Commerce Faculty Ethics in Research Committee of the University of Cape Town. The researcher was invited to present his research proposal to a group of lecturers based within the Section of Organisational Psychology at the university. During the presentation of his research proposal the researcher was presented with various suggestions to improve the envisaged research process. A day after the research proposal presentation the researcher submitted an updated proposal to the Commerce Faculty Ethics in Research Committee. The updated research proposal included the suggestions from the audience. Thereafter the researcher received a signed letter notifying him that the committee had approved his research proposal.

The researcher aimed to sample graduates from different companies in different industries and different roles within South Africa. In order to access this population a meeting was scheduled with the director of the South African Graduate Employers Association (SAGEA). Graduate employers within South Africa join SAGEA and pay annual membership fees to this organisation to obtain the benefit of having access to up-to-date graduate employment research and networking events. SAGEA thus has a database of over 150 graduate employers and their company representatives.

During the meeting with the SAGEA director it was requested that a letter be sent to representatives of all its member companies. She requested that the researcher choose a list of employers that he would like to approach as she had a number of other Masters students who also approached her for assistance and therefore was concerned about the saturation of the database. She mentioned that the general response rates to similar research initiatives are usually poor and therefore the decision to have a more focused sampling strategy was desirable. A suggestion to segment access was preferred into order to accommodate the various students wanting access to graduate employers. She suggested that large corporate organisations be approached as they employ a large number of graduates annually and therefore the researcher would be more likely to obtain an adequate number of respondents.

The total selection included 17 graduate employers across different industries including Retail, Banking, FMCG, and Finance amongst other. One of the companies employed more than 90 graduates during the years 2012 to 2014. The companies were based in various parts of South Africa. In retrospect given the relatively low response rate this decision may have been misguided. This will be reflected on in more detail in the limitations section. The researcher then drafted an introductory letter that would be sent out by the SAGEA director to distribute to the representatives of the selected graduate employers. The letter requested participation in the study and suggested that the company representative contact the researcher directly. Participation of graduate employees employed professionally since 2012 was requested. A copy of the letter can be found in Appendix A.

Eleven days after the initial email, the director of SAGEA was asked to send a reminder email to the potential graduate employers. When the online survey was completed and ready for distribution the link to the survey was included in the letter and sent to the director of the SAGEA to disseminate. Additionally, the researcher obtained permission from three other companies to participate in the study. The survey link was sent to the three company representatives and confirmation emails were received that these contacts sent the email out to their graduate employees. A follow-up email was sent to these representatives in order to send a reminder to their graduate employees to complete the survey before the due date.

The sampling strategy also included contacting one university's career development centre to send the letter of request for participation containing the survey link to their alumni. The letter was also sent to a group of alumni of another university – the head of one of the departments at this university was contacted and requested to send out the request to alumni who graduated since 2011. A confirmation letter was received that the email had been sent to the cohort of alumni. The researcher also asked individuals from his Masters class and employees at his workplace to send the letter to their friends and family who may work for companies who employ graduates. The researcher attempted to increase the sample through these efforts. Out of all the requests sent out only three companies directly confirmed their participation with the researcher. The survey link was provided in every email communication with

possible participants. After a few weeks the survey was closed and the data was cleaned to conduct the analyses.

Data Analyses

Data was analysed using IBM SPSS Statistics version 22. Descriptive statistics were conducted to establish the frequencies, mean and standard deviation of the data. An exploratory factor analysis (EFA) was completed to determine the validity of the four subscales. A reliability analysis was completed in order to determine the Cronbach's alpha coefficient of the four different subscales. The final scales were considered to be valid and reliable (see Results section). In order to answer the different hypotheses Spearman Rho's item-total correlation coefficient was determined for hypothesis 1. This was completed so as to identify the relationship between proactive behaviour and all the other variables. Hypotheses 2, 3 and 4 were tested with the use of moderated hierarchical multiple regression analyses. The hierarchical multiple regression of the variables was completed with proactive behaviour being the dependent variable, transformational leadership as an independent variable, and job autonomy and RBSE as moderators. This was completed in order to examine the contribution of each antecedent towards the dependent variable and to determine whether the relationship between transformational leadership and proactive behaviour is moderated by the autonomy and/or RBSE.

Summary

A total of 76 respondents formed part of the analyses for this research. This compromised the reliability and validity of the subscales.

The initial job autonomy subscale consisted of eight items obtained from Lumpkin et. al. (2009). The initial proactive behaviour subscale consisted of 7 items obtained from Frese et. al. (1997). The initial RBSE subscale consisted of 10 items obtained from Parker (1998). The initial transformational leadership subscale consisted of 22-

items obtained from various sources (Bycio, Allen & Hackett, 1995; Bass & Avalio (1995, as cited in Callow et. al., 2009).

Regarding data collection, SAGEA was approached as the organisation had the highest number of graduate employers as members. Various universities were also contacted. The sampling strategy utilised was not aggressive enough and only 132 respondents were obtained of which the researcher was only able to use 76 responses.

Data analyses were conducted through using IBM SPSS Statistics version 22. Descriptive statistics were competed. EFA and reliability analyses were completed for the four subscales. The final scales were considered to be reliable and valid. Spearman Rho's item-total correlation coefficient was completed for hypothesis 1. For hypotheses 2, 3, and 4 were tested with the use of moderated hierarchical regression analyses.

CHAPTER 3: RESULTS

This chapter provides the result of the validity and reliability of the following four subscales: (1) autonomy, (2) proactive behaviour, (3) role-breadth self-efficacy (RBSE) and (4) transformational leadership. Thereafter, the four hypotheses of this research are answered by illustration of the statistical results achieved. All the tables and figures detailing the results of the different analyses undertaken in this research can be found in Appendices B to H.

Validity (Exploratory factor analysis)

As a small sample (76 participants) was obtained for this research it was not suitable to conduct a exploratory factor analysis on the entire scale of 47 items because Tabachnick and Fidell (2007) recommend that at least five responses per item are suitable although a higher number of cases are preferred - Nunnally (1978) suggests ten participants per item. Following Tabachnick and Fidell's (2007) rule would mean that a minimum of 260 respondents would need to form part of the sample in order to conduct a exploratory factor analysis on the complete scale. The exploratory factor analysis was therefore conducted on the separate subscales with the application of Tabachnick and Fidell's recommendation. This made exploratory factor analysis on all subscales suitable, except for the transformational leadership subscale. The exploratory factor analysis for the transformational leadership subscale was, however, also conducted though results were interpreted with caution as will be seen later in this chapter.

The Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity were first established for each subscale in order to assess its suitability for exploratory factor analysis. The KMO specifies the factorability of a scale based on its underlying components (Kaiser, 1970) and the Bartlett's Test of Sphericity determines whether factor structures can be identified in the data set (IBM, 2014). A KMO of .6 and a significant result on the Barlett's Test of Sphericity would constitute suitability for factor analysis of each subscale (Pallant, 2013; Tabachnick & Fidell, 2007). A KMO

of above 0.6 was achieved for each subscale except job autonomy. Despite the KMO result for the job autonomy scale a factor analysis was still conducted on the subscale. As with the transformational leadership scale, the result for this subscale was interpreted with caution as will be seen in that latter part of this chapter. The Bartlett's Test of Sphericity was significant for all four subscales. The results are indicated in Table B1 in Appendix B.

Principal axis factoring was used as extraction method and varimax with Kaiser normalisation as rotation method. Choosing varimax as rotation method for the analyses assumes that the factors are uncorrelated (Gorsuch, 1983). To establish the number of factors to maintain Kaiser's Eigen value-greater-than-one rule was applied (Kaiser, 1960). It was decided to apply a factor loading cut-off of +/-.32 as per Tabachnick and Fidell (2007). Cross-loadings were established on the basis of item-factor correlation differences of below .3 among items (Tabachnick & Fidell, 2007). Table B1 to B4 (see Appendix B) shows the applicable Eigen values for the different subscales.

Job autonomy subscale

Four rounds of principal axis factoring with varimax rotation were run for the job autonomy subscale. Items that did not load satisfactorily (represented in the form of cross-loadings) were deleted in every round. Before deciding on deleting items it was first identified whether fewer than three significant item-loadings were presented in a factor. If this was the case, factor extraction was applied to remove these. Thereafter items were deleted based on cross-loadings. Table C1 (see Appendix C) shows the Eigen values, explained variance and the items that loaded significantly on to each factor for the four rounds of principal axis factoring. Items that were removed during each round are also indicated as well as where factor extractions were specified. Table C2 (see Appendix C) shows the Eigen values and significant loading coefficients for each factor for each round.

Three factors with Eigen values above 1 emerged during round 1. In round one, factor 3 had two items loading onto it. A factor is considered to be sufficient if three or more items load onto it (Pallant, 2013). Therefore in round two, two factors were extracted. In round two item 8 (.508; .377) cross-loaded onto both factors. This item was deleted from the scale during round 3. In round three only two items loaded onto factor 2, therefore in round four one factor was extracted and the result of the exploratory factor analysis revealed that five out of the initial eight items loaded onto one factor. Thus it formed a unidimensional scale and, following the results of a reliability analysis, a composite score can be derived for all respondents.

RBSE subscale

Two rounds of principal axis factoring with varimax rotation were completed for the RBSE subscale. Table C3 (see Appendix C) shows the Eigen values, explained variance and items that loaded significantly during each round. Items that were removed because of cross-loadings are also stipulated. Table C4 (see Appendix C) shows the significant loading coefficients for each factor of each round. Three factors with Eigen values above 1 emerged during round 1. In round 2, item 8 did not load as an item that explained variance in any of the two emerging factors. In round 2 it was found that item 6 loaded significantly onto both factors. However, closer inspection of these items revealed that, factor 1 related to tasks in specific relation to being confident to achieving an objective and factor 2 related to confidence when interacting with people. The content of item 6 related to designing new work procedures and it loaded higher onto factor 1. Therefore it was decided to include item 6 in factor 1 whilst excluding it from factor 2 (this can be seen in the revised version of round 2). The results of the exploratory factor analysis thus show that the scale had two factors with four items loading onto factor 1 (RBSE related to tasks and outputs) and three items loading onto factor 2 (RBSE related to working with people). These derived subscales were then labelled respectively as task-related RBSE and people-related RBSE. A composite score for each respondent for each of the two factors could thus be derived post the reliability analysis.

Proactive behaviour subscale

Two rounds of principal axis factoring with varimax rotation were completed for the proactive behaviour subscale. Table C5 (see Appendix C) shows the Eigen values, explained variance and items that significantly loaded onto the factors during the different rounds. Two factors with Eigen values of above 1 emerged during round 1. In round 1 only two items significantly loaded onto factor 2 therefore one factor was extracted during round 2 and the results showed that the scale was unidimensional, with all seven items loading significantly onto one factor. Table C6 (see Appendix C) shows the significant loading coefficients for each factor of each round.

Transformational leadership subscale

Three rounds of principal axis factoring with varimax rotation were completed for the transformational leadership subscale. Table C7 (see Appendix C) shows the Eigen values; explained variance; the items that loaded significantly and those that were removed due to cross-loadings. Three factors with Eigen values above 1 emerged during the first round. In round 1 only one item loaded onto factor 4 and therefore a factor extraction to three factors was applied during round 2. The end result in round 3 shows that two factors were derived with items 3, 4, 7, and 8 loading onto factor 1 and items 12, 13, 14, and 15 loading onto factor 2. Thus composite scores were derived for each respondent for each of the two factors based on the reliability analysis. Table C8 (see Appendix C) shows the significant loading coefficients for each factor of each round.

Reliability

The completion of the EFA showed that the job autonomy and proactive behaviour subscales were unidimensional and RBSE and transformational leadership to have

two factors each. The two factors of the RBSE subscale were thus considered as two separate subscales. The same consideration was applied to the two factors of the transformational leadership subscale. The reliability analysis was conducted for each of the separate subscales. The results can be seen in table D1 (see Appendix D). Out of the six derived subscales only three had a Cronbach's alpha of above .7 – the subscales were used for the purpose of research and thus a coefficient of 0.7 or above is suggested in order for scales to be considered to be reliable (DeVillis, 2012). The range of Cronbach's Alpha coefficients for the six subscales were .608 - .860.

The corrected item-total correlations were assessed during the reliability analysis to identify correlation values of less than .3 (Briggs & Cheek, 1986). Items with such a low correlation were removed in order to improve the Cronbach's alpha. However in the proactive behaviour subscale one item that had a corrected item-total correlation of less than .3 was not removed because the results of the reliability analysis revealed that removing this item would not significantly improve the Cronbach's alpha. Table D2 (see Appendix D) shows the items that were deleted from the various subscales.

These items were deleted in order to improve the reliability of the respective subscales, as can been seen in table D2 (see Appendix D). The removal of item 2 from the task-related RBSE subscale resulted in the subscale being reliable. Although the removal of item 2 from the Job autonomy subscale improved its reliability, the Cronbach's alpha still remained below .7. Considering the Cronbach's alpha of the Job autonomy, People-related RBSE and Proactive behaviour subscales (all below .7), it was important to consider other factors that can influence a scale's reliability. The number of items in these subscales may have influenced its reliability (Cortina, 1993). This may specifically be the case for people-related RBSE, as it initially only had four items. Additionally, the constructs being measured by the individual items may have been theoretically diverse even though to a certain degree the clustering of the items makes theoretical sense (Kline, 2000). Low Cronbach's alpha may be achieved for scales with nine or fewer items (Pallant, 2013). The Cronbach's alpha for these three subscales range from .608 to .674 and considering the above-mentioned factors, that may have influenced these subscales' reliability levels. The reliability of these scales can be considered acceptable for this sample group. The final factor loadings and

corrected item-total correlations for the derived subscales are shown in tables E1 to E6 (see Appendix E).

Interpretation of descriptive statistics

After the completion of the factor and reliability analysis, six subscales were derived. A composite score for each of the participants on the six subscales could then be determined. Descriptive statistics for each of the subscales was completed after the exploratory factor analysis. The descriptive statistics are presented for each of the subscales. Table F1 (see Appendix F) shows the descriptive statistics for the six subscales for the 76 respondents.

The means of the subscales ranged from 1.89 to 2.83. On average the responses on the proactive behaviour subscale were generally on the low end of the 5-point Likert-type scale with a maximum response mean (composite score) of 2.86 and a standard deviation of .40. On average the mean responses on the job autonomy subscale were the highest (2.83), with the maximum mean response being 4.75.

Analyses for Testing Hypotheses

Four hypotheses were constructed for this dissertation. The hypotheses can be found at the end of the literature review on page 34. In order to test whether a relationship exists between transformational leadership (inspirational and performance) and proactive behaviour, Spearman's Rho's test was used. Although not specified in hypothesis 1, the same test was used to identify whether relationships existed between responses on all subscales. By using the Spearman Rho's test, correlations can be identified between the different constructs (represented as subscales) and if a correlation exists it can be further identified whether the individual correlations are positive or negative.

Moderated hierarchical multiple regression was completed to test hypotheses two and three. This technique can identify the moderating effects of constructs when considering the relationship between an independent and dependent variable (Allison, 1999). In both hypotheses testing transformational leadership was treated as an independent variable, while proactive behaviour was treated as a dependent variable. In hypothesis two, autonomy was inserted as a moderator whereas in hypothesis three RBSE (task and performance) were inserted as moderators.

In order to answer hypothesis four, mean centred scores were calculated in order to create interaction terms of the different constructs (Aiken & West, 1991). Moderated hierarchical multiple regression analyses were completed.

Assumptions

Preliminary analyses were conducted to identify the analyses to be used in this research. This was completed to ensure that the assumptions of normality and homogeneity of variance were not violated.

Normality

Normality of the six subscales was determined by the use of the Kolmogorov-Smirnov and the Shapiro-Wilk tests. Table G1 shows the results obtained from these tests. The proactive behaviour subscale was the only one that did not violate the assumption of normality. A non-parametric test was used to answer hypothesis 1 as only proactive behaviour responses were normally distributed (Pallant, 2013). Hierarchical multiple regression was used to test hypotheses 2, 3 and 4, as the normally distributed proactive behaviour was the response variable in these hypotheses. Tables G1, G2, G3 and G4 (see Appendix G) show the results for the test of normality for the different subscales.

The histograms and Q-Q plots showing the distribution of the responses for the proactive behaviour subscale are shown in Appendix G in figure G1 and G2. The

histograms and Q-Q plots showing the distribution of the responses for each transformational leadership subscales is shown in Appendix G as figures G3 to G6. The histograms and Q-Q plots showing the distribution of the responses for the job autonomy subscale is shown in Appendix G as figures G7 and G8. The histograms and Q-Q plots showing the distribution of the responses for each of the RBSE subscales is shown in Appendix G as figures G9 to G12.

Hypothesis 1: Transformational leadership, job autonomy and RBSE are positively related to proactive behaviour

Through the EFA and reliability analysis, the variables transformational leadership (inspirational) and transformational leadership (performance) were established. These two variables were separately used to determine whether a relationship existed with proactive behaviour using Spearman Rho's item-total correlation. The results are presented in Table 1 below.

Table 3

Spearman Rho's Rank Order Correlations Between Different Variables

Variable	**1**	**2**	**3**	**4**	**5**	**6**
1. Proactive behaviour	-	.257*	.159	.524**	.409**	.141
2. Transformational leadership (inspirational)	-	-	.650**	.222	.203	.561**
3. Transformational leadership (performance)	-	-	-	.265*	.228*	.487**
4. Task-related RBSE	-	-	-	-	.451**	.116
5. People-related RBSE	-	-	-	-	-	.328**
6. Job autonomy	-	-	-	-	-	-

* p< .05 (2-tailed)

** p < .01(2-tailed)

Preliminary analysis showed that data for the proactive behaviour subscale was normal and data for transformational leadership variables was non-normal. The relationships between the two transformational leadership subscales and proactive behaviour were investigated using Spearman Rho's item-total correlation coefficient. The proactive behaviour score showed a significant, small, positive correlation with the transformational leadership (inspirational) score [r (76) = .257; p<.05] with higher levels of transformational leadership (inspirational) associated with higher levels of proactive behaviour. Although there was a positive relationship between proactive behaviour and transformational leadership (performance) this was not significant. This result thus supports hypothesis 1 with respect to the relationship between transformational leadership (inspirational) and proactive behaviour. Transformational leadership (inspirational) helps to explain 6.6% of the variance in proactive behaviour.

Spearman Rho's correlation coefficient was used to determine the correlation between proactive behaviour and the other variables as proactive behaviour responses were normally distributed and all other variables were non-normal. Spearman Rho's rank order correlations were applied in determining all other relationships as none of the responses were normally distributed. The proactive behaviour score showed the strongest positive and statistically significant relationship with task-related RBSE [r (76) = .524; p<.01] with higher levels of task-related RBSE associated with higher levels of proactive behaviour. Task-related RBSE explained 27.5% of the variance in proactive behaviour, which also had a significant, medium, positive correlation with people-related RBSE [r (76) = .409; p<.01] with higher levels of task-related RBSE associated with higher levels of proactive behaviour. People-related RBSE explained 16.7% of the variance in proactive behaviour.

Regarding the correlation between proactive behaviour and job autonomy, a non-significant, small, positive correlation was found. This result does not support hypothesis 1.

Although not stipulated in the hypotheses, further analyses were investigated to determine the relationship between the other variables (relationships that exclude the dependent variable). All correlation coefficients can be viewed in Table 1.

Hypothesis 2 (H2): Autonomy moderates the relationship between transformational leadership and proactive behaviour in that high autonomy situations lead to an increase in proactive behaviour

Moderated hierarchical multiple regression was used to assess whether job autonomy moderated the relationship between transformational leadership (both inspirational and performance) and proactive behaviour. Hierarchical multiple regression was conducted separately for the two transformational leadership variables.

Preliminary analyses were completed in ensuring no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity. Mean-centred scores were obtained for predictor variables and interactions terms established so as to test whether moderating effects existed for job autonomy in the relationship between transformational leadership (inspirational and performance) and proactive behaviour. The interaction terms and the multiple regression analyses were completed separately for the two transformational leadership variables. The results are presented separately for these two variables as analysis 1 and analysis 2 below.

H2:1a: Job autonomy moderates the relationship between transformational leadership (inspirational) and proactive behaviour in that in a high job autonomy context transformational leadership (inspirational) leads to increased proactive behaviour.

A two-step model was executed. In the first step, transformational leadership (inspirational) and autonomy were entered as main effects. In step 2, the interaction term transformational leadership (inspirational) x autonomy was added as a two-way effect. Table 2 indicates the results of this analysis and includes the regression model, the standardised regression equations (ß), the associated significant p-values, and the confidence intervals (CI) in step 2. The R^2, adjusted R^2 and change in R^2 are also presented.

Table 4

Moderated Hierarchical Regression Analysis: Transformational Leadership (Inspirational) and Job Autonomy Predicting Proactive Behaviour

		Proactive behaviour	
		Model 2	
	Model 1 ß	**ß**	**95% CI**
Transformational leadership (inspirational)	.286*	.319*	[.022; .279]
Autonomy	-.017	.030	[-.162; .202]
Interactions			
Autonomy x Transformational leadership (inspirational)		-.214	[-.287; .013]
R2	.076	.117	
Adjusted R2	.051	.080	
Change in R2		.041	

*p<.05. CI = Confidence interval

R was significantly different from zero after step 1 ($F(3, 72) = 3.176$, $p < .05$) indicating overall regression model significance. In step 2 after introducing the interaction term, change in $R^2 = .041$, *F change* (1, 72) = 3.306, p> .05 showing a non-significant model.

In Step 1 only transformational leadership (inspirational) explained a significant variance in proactive behaviour ß = .286, $p < .05$. Job autonomy did not explain significant variance in proactive behaviour. In the final model containing the interaction term only transformational leadership (inspirational) explained a significant variance in proactive behaviour ß = .319, $p < .05$. In the final model the interaction term did not explain any significant variance in the relationship between transformational leadership (inspirational) and proactive behaviour suggesting no moderating effect of job autonomy in the relationship between transformational leadership (inspirational) and proactive behaviour.

This result therefore does not support hypothesis 2.

The histogram representing the regression standardised residuals for proactive behaviour can be found in figure H1 in Appendix H. The normal probability plot (P-P) and the scatter plot of the regression standardised residuals can be found in figure H2 and H3 respectively in Appendix H.

H2:1b: Job autonomy moderates the relationship between transformational leadership (performance) and proactive behaviour in that in a high job autonomy context transformational leadership (performance) leads to increased proactive behaviour.

A two-step model was executed. In the first step, transformational leadership (performance) and autonomy were entered as main effects. In Step 2, the interaction term *transformational leadership (performance) X autonomy* was added as a two-way effect. Table 3 indicates the results of this analysis and includes the regression model, the standardised regression equations (ß), the associated significant p-values, and the confidence intervals (CI) in Step 2. The R^2, adjusted R^2 and change in R^2 are also presented.

R was not significantly different from zero in both steps indicating overall non-significance of the regression model.

Table 5

Moderating Hierarchical Regression Analysis: Transformational Leadership (Performance) and Job Autonomy Predicting Proactive Behaviour

		Proactive behaviour	
		Model 2	
	Model 1 ß	**ß**	**95% CI**
Transformational leadership (performance)	.100	.127	[-.069; .199]
Autonomy	.098	.149	[-.077; .274]
Interactions			
Autonomy x Transformational leadership (performance)		-.240*	[-.315; -.002]
R2	.171	.286	
Adjusted R2	.003	.044	
Change R2		.053*	

*p<.05. CI = Confidence intervals

In Step 1 none of the variables explained a significant variance in proactive behaviour. In the final model containing the interaction term, the interaction term (*transformational leadership (performance) X job autonomy*) was significant, ß = -.240, p<. 05, change in R^2 = .053, *F change* (1, 71) = 4.092, p<.05, suggesting a moderating effect of job autonomy in the relationship between transformational leadership (performance) and proactive behaviour.

To demonstrate this interaction graphically, figure 5 has been included below. The significance of the interaction term suggests that autonomy is moderating the relationship between transformational leadership (performance) and proactive behaviour, i.e. high transformational leadership (performance) results in higher proactive behaviour under low autonomy conditions, but high transformational leadership (performance) results in lower proactive behaviour under high autonomy conditions. Even though the results suggested that autonomy moderates the relationship between transformational leadership (performance) and proactive behaviour, the effect of transformational leadership (performance) on proactive

behaviour in either circumstance is not large enough to be considered significant. This result therefore does not support hypothesis 2.

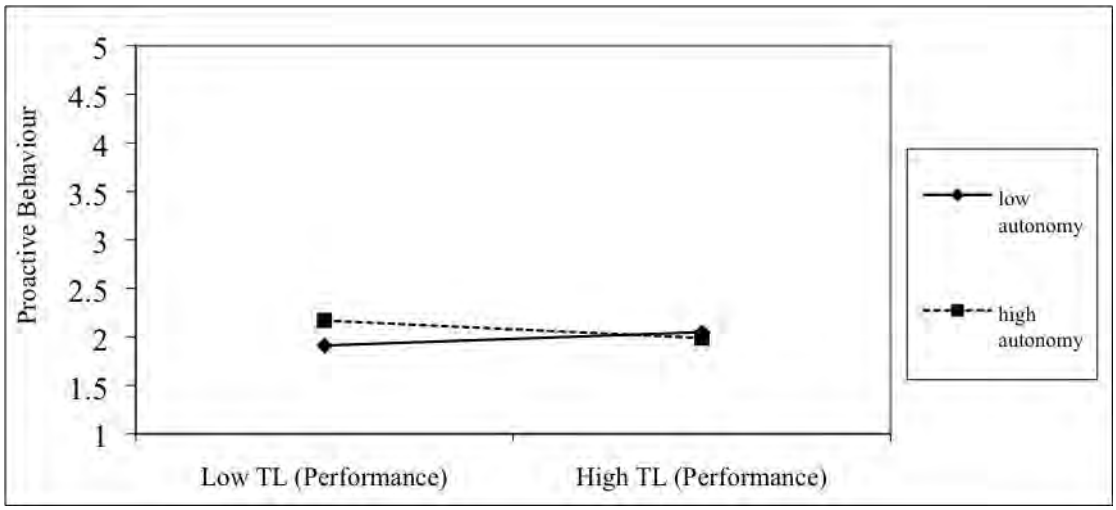

Figure 5. The Moderating Effect of Autonomy in the Relationship between Transformational Leadership (Performance) and Proactive Behaviour.

The histogram representing the regression standardised residuals for proactive behaviour can be found in figure H4 in Appendix H. The normal probability plot (P-P) and the scatter plot of the regression standardised residuals can be found in figure H5 and H6 respectively in Appendix H.

Hypothesis 3 (H3): RBSE moderates the relationship between transformational leadership and proactive behaviour in that higher levels of RBSE leads to increased proactive behaviour

Hierarchical multiple regression was used to assess the ability of RBSE to predict proactive behaviour, after controlling for transformational leadership. The hierarchical regression analyses were conducted separately for the two RBSE variables. Thus the analysis was completed four times, because two transformational

leadership variables and two RBSE variables existed based on the exploratory factor analysis.

H3:1a: Task-related RBSE moderates the relationship between transformational leadership (inspirational) and proactive behaviour in that high task-related RBSE individuals display higher levels of proactive behaviour when exposed to transformational leadership (inspirational)

A two-step model was executed. In the first step, transformational leadership (inspirational) and task-related RBSE were entered as main effects. In Step 2, the interaction term *transformational leadership (inspirational) X task-related RBSE* was added as a two-way effect. Table 4 indicates the results of this analysis and includes the regression model, the standardised regression equations (ß), the associated significant p-values, and the confidence intervals (CI) in Step 2. The R^2, adjusted R^2 and change in R^2 are also presented.

Table 6

Moderating Hierarchical Regression Analysis: Transformational Leadership (Inspirational) and Task-related RBSE Predicting Proactive Behaviour

		Proactive behaviour	
		Model 2	
	Model 1 ß	**ß**	**95% CI**
Transformational leadership (inspirational)	.179	.185	[-.007; .181]
Task-related RBSE	.500*	.493*	[.198; .465]
Interactions			
Transformational leadership (inspirational) X task-related RBSE		.089	[-.081; .215]
R^2	.319*	.326	
Adjusted R^2	.300	.298	
Change R^2		.008	

*p<.05. CI = Confidence interval

R was significantly different from zero only in Step 1 indicating overall significance of the regression model 1, $F(2, 72) = 16{,}834$ $p < .05$. In step 2 after introducing the interaction term, the overall model was significant $F(3, 71) = 11.469$, $p < .05$.

In Step 1 only task-related RBSE explained a significant variance in proactive behaviour (ß = .500, p < .05). Task-related RBSE also explained a significant variance in Step 2 (ß = .493, p < .05). In the final model containing the interaction term, the interaction term (*transformational leadership (performance) X job autonomy*) did not explain a significant variance in the relationship between transformational leadership (performance) and proactive behaviour. This suggested that no moderating effect existed of task-related RBSE on the relationship between transformational leadership (inspirational) and proactive behaviour. This result does not support hypothesis 3.

The histogram representing the regression standardised residuals for proactive behaviour can be found in figure H7 in Appendix H. The normal probability plot (P-P) and the scatter plot of the regression standardised residuals can be found in figure H8 and H9 respectively in Appendix B.

H3:1b: People-related RBSE moderates the relationship between transformational leadership (inspirational) and proactive behaviour in that high people-related RBSE individuals display higher levels of proactive behaviour when exposed to transformational leadership (inspirational)

To assess whether people-related RBSE moderated the relationship between transformational leadership (inspirational) and proactive behaviour, a two-step model was executed. In the first step, transformational leadership (inspirational) and people-related RBSE were entered as main effects. In Step 2, the interaction term *transformational leadership (inspirational) X people-related RBSE* was added as a two-way effect. Table 5 indicates the results of this analysis and includes the regression model, the standardised regression equations (ß), the associated significant

p-values, and the confidence intervals (CI) in Step 2. The R^2, adjusted R^2 and change in R^2 are also presented.

Table 7

Moderating Hierarchical Regression Analysis: Transformational Leadership (Inspirational) and People-related RBSE Predicting Proactive Behaviour

		Proactive behaviour	
		Model 2	
	Model 1 ß	**ß**	**95% CI**
Transformational leadership (inspirational)	.222*	.243*	[.014; .217]
People-related RBSE	.352*	.377*	[.096; .353]
Interactions			
Transformational leadership (inspirational) X people-related RBSE		.145	[-.064; .328]
R^2	.200*	.220*	
Adjusted R^2	.178	.187	
Change R^2		.020	

*p<.05. CI = Confidence interval

R was significantly different from zero in Step 1 and Step 2, indicating overall significance of the regression model 1 ($F(2, 72) = 8.990$ p< .05) and model 2 ($F(3, 71) = 6.657$ p< .05).

In Step 1 both transformational leadership (inspirational) (ß = .222, p < .05) and people-related RBSE (ß = .352, p < .05) explained a significant variance in proactive behaviour. In Step 2 both transformational leadership (inspirational) (ß = .243, p < .05) and people-related RBSE (ß = .377, p < .05) explained a significant variance in proactive behaviour. In the final model containing the interaction term, the interaction term (*transformational leadership (inspirational) X people-related RBSE*) did not explain a significant variance in the relationship between people-related RBSE and proactive behaviour. This suggests that no moderating effect existed of people-

related RBSE on the relationship between transformational leadership (inspirational) and proactive behaviour. This result does not support hypothesis 3.

The histogram representing the regression standardised residuals for proactive behaviour can be found in figure H10 in Appendix H. The normal probability plot (P-P) and the scatter plot of the regression standardised residuals can be found in figure H11 and H12 respectively in Appendix H.

H3:1c: Task-related RBSE moderates the relationship between transformational leadership (performance) and proactive behaviour in that high task-related RBSE individuals display higher levels of proactive behaviour when exposed to transformational leadership (performance)

Moderated hierarchical multiple regression was used to assess the ability of task-related RBSE to moderate the relationship between transformational leadership (performance) and proactive behaviour.

A two-step model was executed. In the first step, transformational leadership (performance) and task-related RBSE were entered as main effects. In Step 2, the interaction term *transformational leadership (performance) X task-related RBSE* was added as a two-way effect. Table 6 indicates the results of this analysis and includes the regression model, the standardised regression equations (ß), the associated significant p-values, and the confidence intervals (CI) in Step 2. The R^2, adjusted R^2 and change in R^2 are also presented.

Table 8

Moderating Hierarchical Regression Analysis: Transformational Leadership (Performance) and Task-related RBSE Predicting Proactive Behaviour

		Proactive behaviour	
		Model 2	
	Model 1 ß	ß	95% CI
Transformational leadership (performance)	.028	.028	[-.092; .120]
Task-related RBSE	.530*	.530*	[.218; .494]
Interactions			
Transformational leadership (performance) X task-related RBSE		.006	[-.173; .183]
R^2	.288*	.289	
Adjusted R^2	.269*	.258	
Change in R^2		.000	

*p<.05. CI = Confidence interval

R was significantly different from zero in Step 1 and Step 2 indicating overall significance of the regression model 1 ($F(2, 72) = 14.596$ p< .05) and model 2 ($F(3, 71) = 9.597$, p< .05).

In model 1 only task-related RBSE explained a significant variance in proactive behaviour, ß = .530 p< .05. Similarly in model 2, only task-related RBSE explained a significant variance in proactive behaviour, ß = .530, p< .05. In model 2 the interaction term did not explain additional variance in the relationship between transformational leadership (performance) and proactive behaviour. This suggests that no moderating effect exists of task-related RBSE on the relationship between transformational leadership (performance) and proactive behaviour. This result does not support hypothesis 3.

The histogram representing the regression standardised residuals for proactive behaviour can be found in figure H13 in Appendix H. The normal probability plot (P-P) and the scatter plot of the regression standardised residuals can be found in figure H14 and H15 respectively in Appendix H.

H3:1d: People-related RBSE moderates the relationship between transformational leadership (performance) and proactive behaviour in that high people-related RBSE individuals display higher levels of proactive behaviour when exposed to transformational leadership (performance)

Moderated hierarchical multiple regression was used to assess the ability of people-related RBSE to moderate the relationship between transformational leadership (performance) and proactive behaviour.

A two-step model was executed. In the first step, transformational leadership (performance) and people-related RBSE were entered as main effects. In Step 2, the interaction term *transformational leadership (performance) X people-related RBSE* was added as a two-way effect. Table 7 indicates the results of this analysis and includes the regression model, the standardised regression equations (ß), the associated significant p-values, and the confidence intervals (CI) in Step 2. The R^2, adjusted R^2 and change in R^2 are also presented.

Table 9

Moderating Hierarchical Regression Analysis: Transformational Leadership (Performance) and People-related RBSE Predicting Proactive Behaviour

		Proactive behaviour	
		Model 2	
	Model 1 ß	**ß**	**95% CI**
Transformational leadership (performance)	.092	.081	[-.074; .157]
People-related RBSE	.375*	.367*	[.086; .351]
Interactions			
Transformational leadership (performance) X people-related RBSE		-.052	[-.221; .138]
R^2	.160*	.163	
Adjusted R^2	.137*	.128	
Change in R^2		.003	

*p<.05. CI = Confidence interval

R was significantly different from zero in Step 1 and 2 indicating overall significance of the regression model 1 ($F(2, 72) = 6.876$, $p < .05$) and model 2 ((3, 71) = 4.605, p< .05).

In model 1 only people-related RBSE explained a significant variance in proactive behaviour (ß = .375, $p < .05$). In model 2, only people-related RBSE explained a significant variance in proactive behaviour (ß = .367, p <.05). The interaction term in model 2 explained no significant variance in the relationship between transformational leadership (performance) and proactive behaviour. This suggests that no moderating effect exists of people-related RBSE on the relationship between transformational leadership (performance) and proactive behaviour. This result does not support hypothesis 3.

The histogram representing the regression standardised residuals for proactive behaviour can be found in figure H16 in Appendix H. The normal probability plot (P-P) and the scatter plot of the regression standardised residuals can be found in figure H17 and H18 respectively in Appendix H.

Hypothesis 4 (H4): Transformational leadership is positively related to employee proactive behaviour in low job autonomy low RBSE situations. Transformational leadership is positively related to employee proactive behaviour in high job autonomy high RBSE situations

The analyses for this hypothesis took into consideration that two separate transformational leadership and RBSE variables were derived from the EFA. Thus, the analysis was divided into four parts to accommodate for these derived factors. These are displayed as four different analyses below.

H4:1a: Transformational leadership (inspirational) is positively related to employee proactive behaviour in low job autonomy low task-related RBSE situations. Transformational leadership (inspirational) is positively related to employee proactive behaviour in high job autonomy high task-related RBSE situations

A hierarchical regression analysis was conducted in order to test hypothesis 4. Mean centred scores were obtained for each of the predictor variables and used to develop interaction terms with proactive behaviour as dependent variable (Aiken & West, 1999). Transformational leadership (inspirational), autonomy and task-related RBSE were entered in Step 1. All two-way interactions were entered in Step 2. These included:

- *Transformational leadership (inspirational) X autonomy*
- *Transformational leadership (inspirational) X task-related RBSE, and*
- *Autonomy X task-related RBSE*

In Step 3, the three-way interaction was entered (*transformational leadership (inspirational) X autonomy X task-related RBSE*). Table 8 presents the regression model and indicates the standardised regression coefficients (β), their significant *p*-values, the confidence intervals in Step 3, as well as R^2, adjusted R^2, and change in R^2.

Table 10

Moderated Hierarchical Regression Analysis: Task-related RBSE and Autonomy Predicting Proactive Behaviour in the Context of Transformational Leadership (Inspirational)

			Proactive behaviour	
			Model 3	
	Model 1 ß	**Model 2 ß**	**ß**	**95% CI**
Transformational leadership (inspirational)	.188	.220	.219	[-.14; .221]
Task-related RBSE	.500*	.476*	.467*	[.138; .490]
Autonomy	-.014	.038	.035	[.146; .193]
Interactions				
Transformational leadership (inspirational) X Autonomy		-.177	-.174	[-.255; .032]
Transformational leadership (inspirational) X Task-related RBSE		.082	.083	[-.187; .313]
Autonomy X Task-related RBSE		.051	.044	[-.358; .458]
Transformational leadership (inspirational) X Autonomy X Task-related RBSE			.015	[-.234; .260]
R2	.319*	.352	.353	
Adjusted R2	.290*	.295	.285	
Change R2		.034	.000	

Note. *p<.05. CI = Confidence Interval

All three models overall were statistically significantly different from zero, Model 1 $F(3, 71) = 11.074$, p. < .05; Model 2 $F(6, 68) = 6.168$, p < .05; Model 3 $F(7, 67) = 5.212$, p < .05.

Only Model 1 variables explained a statistically significant variance in proactive behaviour, $R^2 = .319$, F change (3, 71) = 11.074, p < .05. In Model 1, only task-related RBSE (ß = .500, p< .05) explained a statistically significant variance in

proactive behaviour. Similarly, in model 2 (ß = .476, $p < .05$) and model 3 (ß = .467, $p < .05$) only task-related RBSE explained a statistically significant variance in proactive behaviour.

None of the interaction terms explained a statistically significant variance in the relationship between transformational leadership (inspirational) and proactive behaviour, indicating that the relationship between transformational leadership (inspirational) and proactive behaviour is not dependent on or moderated by autonomy or task-related RBSE. This result do not support hypothesis 4.

The histogram representing the regression standardised residuals for proactive behaviour can be found in figure H19 in Appendix H. The normal probability plot (P-P) and the scatter plot of the regression standardised residuals can be found in figure H20 and H21 respectively in Appendix B.

H4:1b: Transformational leadership (inspirational) is positively related to employee proactive behaviour in low job autonomy low people-related RBSE situations. Transformational leadership (inspirational) is positively related to employee proactive behaviour in high job autonomy high people-related RBSE situations

A hierarchical regression analysis was conducted to test hypothesis 4. Mean centred scores were obtained for each of the predictor variables and used to develop interaction terms with proactive behaviour as the dependent variable (Aiken & West, 1999). Transformational leadership (inspirational), autonomy and people-related RBSE were entered in Step 1. All two-way interactions were entered in Step 2. These included:

- *Transformational leadership (inspirational) X autonomy*
- *Transformational leadership (inspirational) X people-related RBSE, and*
- *Autonomy X people-related RBSE*

In Step 3, the three-way interaction was entered (*transformational leadership (inspirational) X autonomy X people-related RBSE*). Table 9 presents the regression

model and indicates the standardised regression coefficients (β), their significant *p*-values, the confidence intervals in Step 3, as well as R^2, adjusted R^2, and change in R^2.

Table 11

Moderated Hierarchical Regression Analysis: People-related RBSE and Autonomy Predicting Proactive Behaviour in the Context of Transformational Leadership (Inspirational)

			Proactive behaviour	
			Model 3	
	Model 1 ß	**Model 2 ß**	**ß**	**95% CI**
Transformational leadership (inspirational)	.290*	.280*	.286*	[.004; .266]
Autonomy	-.125	-.032	-.035	[-.216; .169]
People-related RBSE	.377*	.403*	.410*	[.089; .400]
Interactions				
Transformational leadership (inspirational) X Autonomy		-.157	-.164	[-.269; .059]
Transformational leadership (inspirational) X People-related RBSE		.247	.253	[-.032; .492]
Autonomy X People-related RBSE		-.170	-.169	[-.452; .111]
Transformational leadership (inspirational) X Autonomy X People-related RBSE			-.021	[-.257; .218]
R2	.210*	.254	.254	
Adjusted R2	.176*	.188	.176	
Change R2		.044	.000	

Note. *p<.05. CI = Confidence Interval

All 3 models overall were statistically different from zero, Model 1 $F(3, 71) = 6.282$, $p < .05$; Model 2 $F(6, 68) = 3.853$, $p < .05$; Model 3 $F(7, 67) = 3.259$, $p < .05$.

Only model 1 explained a statistically significant variance in proactive behaviour R^2 = .210, *F* change (3, 71) = 6.282, p < .05. Model 2 and 3 overall explained no additional variance in proactive behaviour.

In Model 1 only transformational leadership (inspirational) (ß = .290, p < .05) and people-related RBSE (ß = .377, p<.05) explained a significant variance in proactive behaviour. In Model 2, which included the interaction terms, only transformational leadership (inspirational) (ß = .280, p<.05) and people-related RBSE (ß = .403, p < .05) explained a statistically significant variance in proactive behaviour. None of the interaction terms explained a statistically significant variance in the relationship between transformational leadership (inspirational) and proactive behaviour. In model 3 only transformational leadership (inspirational) (ß = .286, p<.05) and people-related RBSE (ß = .410, p<.05) explained a statistically significant variance in proactive behaviour. None of the interaction terms contributed a statistically significant variance in the relationship between transformational leadership (inspirational) and proactive behaviour indicating that the relationship between transformational leadership (inspirational) and proactive behaviour is not dependent on or moderated by autonomy or people-related RBSE. This result do not support hypothesis 4.

The histogram representing the regression standardised residuals for proactive behaviour can be found in figure H22 in Appendix H. The normal probability plot (P-P) and the scatter plot of the regression standardised residuals can be found in figure H23 and H24 respectively in Appendix H.

H4:1c: Transformational leadership (performance) is positively related to employee proactive behaviour in low job autonomy low task-related RBSE situations. Transformational leadership (performance) is positively related to employee proactive behaviour in high job autonomy high task-related RBSE situations

A hierarchical regression analysis was conducted in order to test hypothesis 4. Mean centred scores were obtained for each of the predictor variables and used to develop interaction terms with proactive behaviour as dependent variable (Aiken & West,

1999). Transformational leadership (performance), autonomy and task-related RBSE were entered in Step 1. All two-way interactions were entered in Step 2. These included:

- *Transformational leadership (performance) X autonomy*
- *Transformational leadership (performance) X task-related RBSE, and*
- *Autonomy X task-related RBSE*

In Step 3, the three-way interaction was entered (*Transformational leadership (performance) X autonomy X task-related RBSE*). Table 10 presents the regression model and indicates the standardised regression coefficients (β), their significant *p*-values, the confidence intervals in Step 3, as well as R^2, adjusted R^2, and change in R^2.

Table 12

Moderated Hierarchical Regression Analysis: Task-related RBSE and Autonomy Predicting Proactive Behaviour in the Context of Transformational Leadership (Performance)

			Proactive behaviour	
			Model 3	
	Model 1 ß	Model 2 ß	ß	95% CI
Transformational leadership (performance)	-.023	.014	.015	[-.116; .132]
Autonomy	.102	.137	.128	[-.073; .244]
Task-related RBSE	.530*	.511*	.470*	[.154; .477]
Interactions				
Transformational leadership (performance) X Autonomy		-.160	-.122	[-.238; .077]
Transformational leadership (performance) X Task-related RBSE		-.063	-.044	[-.271; .193]
Autonomy X Task-related RBSE		.120	-.088	[-.209; .409]
Transformational leadership (performance) X Autonomy X Task-related RBSE			.093	[-.194; .399]
R2	.296*	.327	.331	
Adjusted R2	.267*	.267	.262	
Change R2		.030	.005	

Note. *p<.05. CI = Confidence Interval

All three models were statistically significantly different from zero, Model 1 ($F(3, 71) = 9.963$, $p < .05$); Model 2 ($F(6, 68) = 5.499$, $p < .05$); Model 3 ($F(7, 67) = 4.746$, $p<.05$).

Only Model 1 explained a statistically significant variance in proactive behaviour, R^2 = .296, *F* change (3, 71) = 9.963, p< .05. In model 1 only task-related RBSE explained a statistically significant variance in proactive behaviour, ß = .530, p < .05.

In Model 2 only task-related RBSE explained a statistically significant variance in proactive behaviour, ß = .511, p < .05. In Model 3 only task-related RBSE explained a statistically significant variance in proactive behaviour, ß = .470, p < .05.

None of the interaction terms contributed a statistically significant variance in the relationship between transformational leadership (performance) and proactive behaviour indicating that the relationship between transformational leadership (performance) and proactive behaviour is not dependent on or moderated by autonomy or task-related RBSE. This result does not support hypothesis 4.

The histogram representing the regression standardised residuals for proactive behaviour can be found in figure H25 in Appendix H. The normal probability plot (P-P) and the scatter plot of the regression standardised residuals can be found in figure H26 and H27 respectively in Appendix H.

H4:1d: Transformational leadership (performance) is positively related to employee proactive behaviour in low job autonomy low people-related RBSE situations. Transformational leadership (performance) is positively related to employee proactive behaviour in high job autonomy high people-related RBSE situations

A hierarchical regression analysis was conducted in order to test hypothesis 4. Mean centred scores were obtained for each of the predictor variables and used to develop interaction terms with proactive behaviour as dependent variable (Aiken & West, 1999). Transformational leadership (performance), autonomy and people-related RBSE were entered in Step 1. All two-way interactions were entered in Step 2. These include:

- *Transformational leadership (performance) X autonomy*

- *Transformational leadership (performance) X people-related RBSE, and*
- *Autonomy X people-related RBSE*

In Step 3, the three-way interaction was entered (*Transformational leadership (performance) X autonomy X people-related RBSE*). Table 11 presents the regression model and indicates the standardised regression coefficients (β), their significant *p*-values, the confidence intervals in Step 3, as well as R^2, adjusted R^2, and change in R^2.

Table 13

Moderated Hierarchical Regression Analysis: People-related RBSE and Autonomy Predicting Proactive Behaviour in the Context of Transformational Leadership (Performance)

			Proactive behaviour	
			Model 3	
	Model 1	**Model 2**	**ß**	**95% CI**
	ß	**ß**		
Transformational leadership (performance)	.094	.093	.068	[-.113; .183]
Autonomy	-.005	.017	.015	[-.186; .206]
People-related RBSE	.376*	.340*	.320*	[.030; .351]
Interactions				
Transformational leadership (performance) X Autonomy		-.110	-.047	[-.245; .183]
Transformational leadership (performance) X People-related RBSE		-.031	-.080	[-.322; .194]
Autonomy X People-related RBSE		-.036	-.031	[-.334; .271]
Transformational leadership (performance) X Autonomy X People-related RBSE			.109	[-.165; .329]
R2	.160*	.172	.177	
Adjusted R2	.125*	.099	.092	
Change R2		.012	.005	

Note. *p<.05. CI = Confidence Interval

Only models 1 and 2 were statistically significantly different from zero, Model 1 F(3, 71) = 4,521, p < .05; Model 2 F(6, 68) = 2.356, p < .05.

Only Model 1 explained a statistically significant variance in proactive behaviour, R^2 = 160, F change (3, 71) = 4.521, $p < .05$. In Model 1 only people-related RBSE explained a statistically significant variance in proactive behaviour, ß = .376, $p< .05$.

In Model 2 which included the Step 2's interaction terms, only people-related RBSE explained a statistically significant variance in proactive behaviour, ß = .340, $p < .05$. In Model 3 only people-related RBSE explained a statistically significant variance in proactive behaviour, ß = .320, $p < .05$. None of the interaction terms contributed a statistically significant variance in the relationship between transformational leadership (performance) and proactive behaviour indicating that the relationship between transformational leadership (performance) and proactive behaviour is not dependent on or moderated by autonomy or people-related RBSE. This result does not support hypothesis 4.

The histogram representing the regression standardised residuals for proactive behaviour can be found in figure H28 in Appendix H. The normal probability plot (P-P) and the scatter plot of the regression standardised residuals can be found in figure H29 and H30 respectively in Appendix H.

Summary

Exploratory factor analyses were conducted on the separate subscales with the application of Tabachnick and Fidell's recommendation. This made exploratory factor analysis on all subscales suitable, except for the transformational leadership subscale. The exploratory factor analysis for the transformational leadership subscale was, however, also conducted though results were interpreted with caution.

A KMO of above .6 was achieved for each subscale except job autonomy. Despite the KMO result for the job autonomy scale a exploratory factor analysis was still conducted on the subscale. As with the transformational leadership scale, the result for this subscale was interpreted with caution. The Bartlett's Test of Sphericity was significant for all four subscales.

Principal axis factoring was used as extraction method and varimax with Kaiser normalisation as rotation method. To establish the number of factors to maintain Kaiser's Eigen value-greater-than-one rule was applied (Kaiser, 1960). It was decided to apply a factor loading cut-off of +/-.32 as per Tabachnick and Fidell (2007). Cross-loadings were established on the basis of item-factor correlation differences of below .3 among items (Tabachnick & Fidell, 2007).

The result of the exploratory factor analysis revealed that for the job autonomy subscale five out of the initial eight items loaded onto one factor. The job autonomy subscale formed a unidimensional scale. The results of the exploratory factor analysis showed that the RBSE scale had two factors with four items loading onto factor 1 (RBSE related to tasks and outputs) and three items loading onto factor 2 (RBSE related to working with people). These derived subscales were then labelled respectively as task-related RBSE and people-related RBSE. The exploratory factor analysis results showed that the proactive behaviour subscale was unidimensional, with all seven items loading significantly onto one factor. The result of the exploratory factor analysis on the transformational leadership subscale showed that two factors were derived with items 3, 4, 7, and 8 loading onto factor 1 and items 12, 13, 14, and 15 loading onto factor 2.

The reliability analysis was conducted for each of the separate subscales. Out of the six derived subscales only three had a Cronbach's alpha of above .7. The range of Cronbach's Alpha coefficients for the six subscales were .608 - .860. The corrected item-total correlations were assessed during the reliability analysis to identify correlation values of less than .3 (Briggs & Cheek, 1986). Items with such a low correlation were removed in order to improve the Cronbach's alpha.

Four hypotheses were constructed for this dissertation. In order to test whether a relationship existed between transformational leadership (inspirational and performance) and proactive behaviour; RBSE (task-related and people-related) and proactive behaviour; and job autonomy and proactive behaviour, Spearman's Rho's test was used. Moderated hierarchical multiple regression was completed to test hypotheses two and three. In hypothesis two, autonomy was inserted as a moderator

whereas in hypothesis three RBSE (task and performance) were inserted as moderators. In order to answer hypothesis four, mean centred scores were calculated in order to create interaction terms of the different constructs. Moderated hierarchical multiple regression analyses were completed.

Normality of the six subscales was determined by the use of the Kolmogorov-Smirnov and the Shapiro-Wilk tests. The proactive behaviour subscale was the only one that did not violate the assumption of normality. A non-parametric test was used to answer hypothesis 1 as only proactive behaviour responses were normally distributed. Hierarchical multiple regression was used to test hypotheses 2, 3 and 4, as the normally distributed proactive behaviour was the response variable in these hypotheses.

The results supported hypothesis 1 with respect to the relationship between transformational leadership (inspirational) and proactive behaviour; the relationship between task-related RBSE and proactive behaviour; and the relationship between people-related RBSE and proactive behaviour. The results did not support hypothesis with regards to the relationship between job autonomy and proactive behaviour.
The results did not support hypothesis 2, 3 and 4.

CHAPTER 4: DISCUSSION

The objective of this research was to assess the research and model of Den Hartog and Belschak (2012) on the antecedents of proactive behaviour within an entry-level graduate context. Their model identified transformational leadership, job autonomy and role-breadth self-efficacy (RBSE) as antecedents of proactive behaviour. This chapter details the validity and reliability findings, i.e. psychometric characteristics of the subscales derived from the quantitative research. The key findings obtained in this research are outlined relative (to) the four tested hypotheses. This is followed by suggestions for graduate employers interested in fostering proactive behaviour in their graduate employees. The chapter concludes with the identified limitations of the research and recommendations for researchers interested in furthering this study.

Psychometric characteristics

The study of proactive behaviour of employees is a recent movement and little scientific research exists on the study of this construct within the South African entry-level graduate context. With the aim of researching proactive behaviour within a graduate context the researcher decided to base his research on the model of the antecedents of proactive behaviour from Den Hartog and Belschak (2012). Den Hartog and Belschak's (2012) research and model provided a succinct model of the antecedents of proactive behaviour and equipped the researcher with a starting point for the variables and subscales that could be used in order to measure the identified variables in a graduate context. The subscales mirror the content identified by Den Hartog and Belschak (2012) however there was some variation in the items used in the overall scale as the sample differed from that of these researchers.

The KMO and Bartlett's Test of Sphericity was satisfactory (above .6) for all initial subscales except job autonomy. This may have been due to the number of items in the job autonomy subscale and the lack of contributing variance in scale items (Pallant, 2013). The results of the study with regards to this variable should thus be interpreted with caution.

After the exploratory factor analysis (EFA) through which six subscales were obtained the reliability analysis yielded coefficients ranging from .608 to .860. All subscales were thus considered to have acceptable levels of reliability and the scale, as a whole was able to measure the six different variables. Improvement in the reliability levels of the three subscales namely job autonomy (.608), people-related RBSE (.662) and proactive behaviour (.674) is however motivated as a Cronbach's alpha of 0.7 is considered satisfactory as a general rule (Pallant, 2013). These low reliability levels may be attributed to the small sample size (N = 76). The psychometric characteristics of this scale can be compared to that obtained by Den Hartog and Belschak (2012) with their sample. The reliability coefficients of their self-rated scales ranged from .85 to .93. It is clear that the subscales used by Den Hartog and Belschak (2012) had higher levels of reliability. This may be due to the difference in samples used as well as the differences in items used in their research compared to that used in this dissertation (Pallant, 2013).

Den Hartog and Belschak (2012) obtained four unidimensional subscales in their study compared to the six subscales obtained from the factor analyses in this dissertation. In this research unidimensional subscales were obtained for the autonomy and proactive behaviour variables. Two separate variables were obtained for both the transformational leadership and RBSE constructs.

Two subscales for transformational leadership were obtained measuring transformational leadership (inspirational) and transformational leadership (performance). All 22 items of the initial transformational leadership subscale were subjected to a principal axis factor analysis with varimax rotation and only eight items were retained making up four items per factor. This suggests that each type of transformational leadership factor, i.e. inspirational and performance are discreet factors.

This result differs from the unidimensional scale obtained from Den Hartog and Belschak's (2012) study. A number of explanations can be identified for the result. Firstly, the sample obtained for this research included 76 graduates in entry-level positions whereas in Den Hartog and Belschak's study the sample consisted of 150

(study 1) and 158 employees (study 2) from different organisations whose designation was not identified in their research. The difference in sample characteristics could have played a role in the difference in the result of the exploratory factor analysis (Pallant, 2013). Additionally, Den Hartog and Belschak included the participants' peers and supervisors in their study. This may have provided these researchers with more robust results.

Secondly, early in their careers graduates may be highly sensitive to the different elements of transformational leadership displayed by their managers. Their managers may play a major role in establishing and launching their careers. With transformational leadership (inspirational) emerging as a separate variable in the exploratory factor analysis it may show the need of graduates for inspiration from a highly experienced employee and manager. Graduates may have entered the workplace with idealistic views of what their work and workplaces may entail and therefore may require more inspiration from their managers when some of the ideals are disproved. This is different to what employees who have worked for a number of years may experience – they may have a more realistic view of the workplace that was built through having a number of workplace experiences. Considering the transformational leadership (performance) variables graduates may be sensitive to the need of their managers to have the ability to increase their skills with the intent to improve their performance. They may depend on their ability to recognise, confirm and reward achieved performance. Their performance in their early career stages may be an important consideration as graduates may still be seeking to make a significant contribution to their organisations and continuously strive to show their value through meeting required performance standards. Managers may thus play an important role in unlocking and improving their graduates' performance.

Two RBSE subscales were obtained from the exploratory factor analysis: namely task-related- and people-related RBSE. Den Hartog and Belschak (2012) obtained a unidimensional subscale in their research. All ten items of the initial RBSE subscale were subjected to a principal axis factor analysis with varimax rotation. However only seven items were retained making up four items for the task-related RBSE subscale and three for the people-related RBSE scale. This suggests that each RBSE factor is a discreet factor.

Two subscales may have been obtained in this research due to the sample used as compared the sample used by Den Hartog and Belschak (2012). According to Parker (1998) these tasks and interactions are characterised by elements of proactive behaviour, interpersonal interactions and incorporative activities that go beyond the technical requirements of the person's job. The items used in the initial RBSE subscale were obtained from Parker (2000). It is clear that the exploratory factor analysis separated the items relating to interpersonal interactions from the rest of the items and thus two factors were derived. The two RBSE variables may have been obtained from the exploratory factor analysis as graduates entering the working environment may face new challenges in building their self-efficacy. Their role-breadth self-efficacy may relate to two areas: their belief in their ability to complete tasks successfully in and related to their roles (task-related RBSE) and their belief in their ability to work effectively with people within a professional context (people-related RBSE). As per Parker's definition, these tasks and interactions go beyond the technical requirements of the graduate's role and both of these areas may be perceived as challenging because graduates may still be building their skills and expertise within a role to complete tasks successfully. Additionally, engaging with colleagues and stakeholders successfully may require some form of technical knowledge as a basis from which to be able to speak confidently.

Interpretation of Descriptive Statistics

Job autonomy subscale

The job autonomy subscale had a mean response of 2.83 on the five-point Likert-type scale, suggesting that the job incumbents in this study as a whole experienced an average level of autonomy in their roles at the time of completing the study.

An employee experiences autonomy in his or her job when work provides considerable responsibility and independence to the employee in establishing the

course of action towards task and job achievement (Hackman & Oldham, 1976). Considering that graduates in entry-level roles may still be building competence within their roles, their managers may be reluctant to provide them with a high level of responsibility and independence in completing work. Therefore it makes sense that the sample indicated they experienced an average level of autonomy. Only participants with a maximum work experience of three years were included in the sample. It is expected that if participants with a higher number of years of work experience were included that a higher average for job autonomy may have been achieved. 25% of the participants indicated a response of more than 3.25 (maximum = 4.75) on the job autonomy subscale which showed that some graduates in entry-level roles do experience high levels of autonomy. These graduates may have a high level of competence, good past work performance and managers who display a particular type of leadership style that provides the graduate with increased job autonomy.

People-related RBSE subscale

The mean response for the people-related RBSE subscale was 1.89 on the five-point Likert-type scale suggesting that the job incumbents in this study as a whole experienced a below average level of people-related RBSE. This was the lowest obtained mean out of all the six subscales. This result suggests that the participants experienced, on average, low levels of confidence in their ability to be successful at performing work that is dependent on interacting with people.

The RBSE construct focused particularly on a person's confidence in successfully executing duties that go beyond the technical aspects of his or her role (Parker, 1998). As graduates in entry-level roles may still be building technical competence in their roles it may be expected that they might experience low levels of confidence in successfully participating in professional engagements that require technical competence. The time they have had to master professionalism in their interpersonal engagements is also limited. Moreover, professional interactions that go beyond the technical requirements of a role may be experienced as having a higher level of personal challenge for these graduates. This level of challenge can be ascertained in

the statements in the people-related RBSE subscale which included statements relating to contributing to discussions regarding the graduates' company's strategy, contacting people outside of the organisation to discuss problems and visiting people from other organisations to suggest doing things differently. It thus makes sense that the sample indicated a below-average level of people-related RBSE.

25% of the participants in the study indicated that they experienced people-related RBSE higher than 2.3 (maximum of 3.67). These graduates may have had better people skills and/or higher levels of cognitive abilities than those that indicated lower levels of people-related RBSE.

Task-related RBSE subscale

The task-related RBSE subscale obtained a mean response of 2.07 on the five point Likert-type scale suggesting that the participants in this study experienced as a whole below average levels of task-related RBSE. This result suggests that participants experienced below average levels of confidence in their ability to complete job-related tasks successfully.

Graduates in entry-level jobs may still be in the process of building their competence within a specific role. It is expected that they would have below average levels of self-efficacy regarding their ability to successfully complete job-related tasks. As RBSE focuses on confidence that relates to tasks which go beyond the technical requirements of a role (Parker, 1998) it makes sense that graduates would also experience low levels of RBSE as these tasks may be perceived as being highly challenging. The statements included in the task-related RBSE subscale measured the participants' confidence in analysing a long-term problem to find a solution, setting goals and targets, and designing new work procedures for their area. If graduates are still building technical competence within their role it is expected that they would fare poorly in terms of their confidence to be successful in the mentioned statements.

Transformational leadership (Inspirational) subscale

The transformational leadership (inspirational) subscale obtained a mean score of 2.3 on the five point Likert-type scale, suggesting that the participants in this study perceived their managers as demonstrating below but close to average levels of inspirational transformational leadership.

According to Den Hartog and Belschak (2012) transformational leaders are characterised by their ability to convey a large-scale vision to employees, setting increasingly high goals for employees, and facilitates achievement of these goals and the vision through constantly building confidence of employees. This view of this type of leadership thus focuses on the broader vision of the department and the organisation within which the graduate resides rather than their role's operational day-to-day activities. Considering this it is understandable that graduates may have perceived their managers to have demonstrated low levels of transformational leadership. Their managers may have focused on investing time building their technical competence within a role in order for graduates to have achieved the required standards of performance. By doing this graduates might have been able to start adding value to their organisations as soon as possible. Entry-level roles offered to these graduates may have by nature been highly operational, so graduates' managers may have put less effort into focusing on conveying strategic information and investing time inspiring these individuals.

Transformational leadership (performance) subscale

The transformational leadership (performance) subscale obtained a mean score of 2.3 on the five-point Likert-type scale, suggesting that the participants in this study perceived their managers as demonstrating below but close to average levels of performance-related transformational leadership.

The theme in the transformational leadership (performance) subscale related to the behaviour of managers towards their graduates when they achieved good performance. Transformational leaders set increasingly high goals for employees and facilitate the achievement of these goals (Den Hartog & Belschak, 2012). It may be important to consider that these graduates might not have been effectively inspired to achieve increasingly challenging goals when these were provided. These graduates' managers may have put little effort into expressing appreciation for good performance because even though these graduates may have been performing in their roles they might still have been in the process of learning their full scope. Graduates and their managers may have differed in their opinions of the level of performance that's worthy of praise, so managers may have higher standards than graduates and therefore not provide graduates with the level of appreciation they expect.

It is interesting to note that the means for both inspirational-related and performance-related transformational leadership are the same. An inspection of the statements within both of these subscales shows that both measured the managers' ability to be charismatic, which agrees with Bass' (1991) view of transformational leadership.

Proactive behaviour subscale

The proactive behaviour subscale obtained a mean score of 1.94 on the five-point Likert-type scale, suggesting that the participants in this study perceived as a whole below average levels of displayed proactive behaviour in their roles. It may be important to note here that the responses to the subscale indicated a maximum score of 2.86, which was the lowest maximum score obtained out of all six subscales. This maximum score with the mean may indicate that participants, at the time of completing the study, had perceived low to average levels of their displayed proactive behaviour.

The definitions of proactive behaviour include the notion that self-initiated action is taken by an individual to implement change (Crant, 2000; Den Hartog & Belschak, 2012). Frese and Fay (2001) argued that passive employee behaviour is emphasized

where employees have to be trained to conduct a job in a prescribed manner. Participants occupying these entry-level roles may still have received training on how to complete their job tasks in a specified way. Additionally, Parker, Bindl and Strauss (2010) identified 'active' goal-setting as one of the key components of proactive behaviour. Is it highly likely that the participants did not set their own job-related goals but rather that their managers determined these for them. Thus, the organisational context in which these graduates found themselves may have reinforced the adoption of reactive behaviours.

Results Related to Hypotheses

The literature on proactive behaviour reveals that a number of factors can contribute to the display of this behaviour (Crant, 2000; Den Hartog & Belschak, 2012; Frese & Fay, 2001; Frese et. al., 1997; Parker et. al., 2010). Given the descriptive statistics obtained in this study it was unlikely that many significant findings would be achieved through the four hypotheses that were tested. Additionally, given the sample size of this research and result of the power analysis of the subscales, all the results should be interpreted with caution (Pallant, 2013).

Hypothesis 1

Correlation: Transformational leadership and proactive behaviour

The results of this study revealed that of the two transformational leadership subscales only the inspirational subscale had a small positive statistically significant relationship with proactive behaviour. The findings suggest that for this sample transformational leadership (inspirational) is more likely to co-exist with proactive behaviour than when managers display transformational leadership (performance).

Closer inspection of the theme in each of the transformational leadership subscales shows that the transformational leadership (inspirational) subscale is about

establishing an overall positive orientation and a way of operating for the graduate whereas transformational leadership (performance) is about the overall recognition that the graduate receives for good performance. The view of the researcher is that the inspirational subscale is measuring perceptions of the unconditional display of transformational leadership, whereas the performance subscale is measuring the perceptions of displayed transformational leadership based on performance making this type of transformational leadership conditional. The results therefore suggest that proactive behaviour correlate more highly and significantly with 'unconditional' transformational leadership than its correlation with transformational leadership that is contingent on good performance.

This conditional type of 'transformational leadership' may resemble what Bass (1991, p. 22) refers to as transactional leadership. One of the characteristics of transactional leadership is "contingent reward". Two of the behaviours that are characterised as part of "contingent reward" are (1) the agreement that the employee will receive a reward for successful performance, and (2) the acknowledgment of employee achievement (Bass, 1991). This means that even though the behaviour statements in the transformational leadership (performance) subscale may pose as items that measure elements of transformational leadership, they may really be measuring the mentioned element of transactional leadership. It may be for this reason that the transformational leadership (performance) responses did not correlate significantly with proactive behaviour.

Correlation: RBSE and proactive behaviour

Out of all the variables both task-related and people-related RBSE had the strongest positive and significant correlations with proactive behaviour. This means that for the graduates in this study, the display of increased proactive behaviour was more likely to co-exist at higher levels of RBSE. This, however, does not provide any evidence of a causal relationship between these variables. It is argued that the display of proactive behaviour is more prominent in graduates with higher levels of RBSE because they anticipate higher levels of success than their lower RBSE counterparts (Parker et. al., 2006). This positive relationship between RBSE and proactive behaviour makes sense

within a graduate entry-level role context because graduates may still be in the process of developing various competencies. Within this context a graduate's RBSE may be partly a function of the competencies they possess and as they develop competencies their RBSE may be affected.

RSBE is also dependent on the contextual circumstances such as the activities that are being completed, the level of complexity of the activities and the people who the graduate engages with (Crant, 2000). Therefore it may mean that a graduate's RBSE may change as the context changes. As suggested by the results and previous research (Den Hartog & Belschak, 2012; Parker, et. al., 2006; Strauss et. al., 2009) RBSE seems to coexist with proactive behaviour and as RBSE is changeable it may suggest that graduates may display different levels of proactive behaviour within different contexts due to their changeable levels of RBSE.

As RBSE is changeable and dependent on contextual situations it follows that managers may be able to affect graduates' RBSE with the aim of improving their display of proactive behaviour.

Correlation: Job autonomy and proactive behaviour

The correlation between job autonomy and proactive behaviour was found to be positive but this correlation was not significant. This means that for this sample of graduates higher levels of perceived job autonomy did not co-exist significantly with higher levels of displayed proactive behaviour.

Within an entry-level graduate context, graduates' perceptions of job autonomy may be partly a function of the competencies they possess, i.e. the more competent these graduates are, the higher their expectation of job autonomy. It is however argued that within an entry-level graduate context the development of job competencies may be highly prevalent. Therefore these graduates may have perceived their level of job autonomy in relation to their level of competency, i.e. more favourable perceptions of autonomy in relation to their technical competency level.

Inline with this, this results may have been achieved because there may be a link between graduates perceptions of job autonomy and their level of behavioural competence. Graduates' perceptions of their display of proactive behaviour may be a function of their perceptions of their ability to perform successfully when undertaking proactive action (Parker, 1998, 2000). The perceptions of their ability to perform successfully may be a function of their level of competencies within their roles. Seeing that proactive behaviour tends to focus on action that goes beyond technical requirements of a role (Parker, 1998) the competencies of relevance here are behavioural competencies, for example, the ability to communicate effectively and to be assertive. For graduates in entry-level roles these competencies may also be in development based on the required professional skills and organisational culture and therefore may provide an explanation for the non-significant correlation between autonomy and proactive behaviour.

Hypothesis 2

Autonomy as moderator in the relationship between transformational leadership (performance) and proactive behaviour

Hypothesis two is different to the hypotheses presented by Den Hartog and Belschak (2012). In this research it was specifically hypothesised that autonomy, isolated from the consideration of RBSE, would moderate the relationship between transformational leadership (performance in this case) and proactive behaviour in that higher levels of autonomy lead to increased proactive behaviour. The results do not support this. Den Hartog and Belschak, however, found that consideration needs to be given to both autonomy and RBSE in order to be able to adequately establish whether the display of transformational leadership leads to an increase in proactive behaviour. This hypothesis did not take RBSE into account.

It was found that job autonomy moderated the relationship between transformational leadership (performance) and proactive behaviour. Specifically, high transformational

leadership (performance) results in higher proactive behaviour under low autonomy conditions, but high transformational leadership (performance) results in lower proactive behaviour under high autonomy conditions. However, the effect of transformational leadership (performance) on proactive behaviour in either circumstance is not large enough to be considered significant. Thus, autonomy was found to be a significant moderator because it changed the relationship between transformational leadership (performance) and proactive behaviour at different levels of autonomy - not because the conditions lead to a significant increase in proactive behaviour.

One of the potential reasons that a significant moderated effect of job autonomy did not translate to a significant impact on proactive behaviour may be the low KMO achieved when determining the suitability of the subscale for exploratory factor analysis. This result may have compromised the results of all analyses that included the job autonomy subscale.

To discover an explanation for the findings, it may be sensible to consider the dynamics of proactive behaviour within the context of entry-level graduate roles. Here the argument posed is that perhaps proactive behaviour within the graduate context is different to that which is displayed in the general employee population. In the latter, a number of job-relevant competencies have already been developed. Within entry-level roles graduates may still be building job-related competencies, i.e. those that are critical to achieving success in their roles. Whilst proactive behaviour, as measured by the subscale in this research, may focus on, amongst other, 'actively confronting problems' and 'taking initiative immediately when others don't', it may be that the questions in the subscale may be more suitable to employees who are already capable of performing their professional roles. Thus, it is argued that a potential reason for the non-significant findings could be the lack of relevant items within the proactive behaviour subscale. This argument goes back to the characteristics of the difference in the sample used in the Den Hartog and Belschak (2012) study compared to that used in this study – the main characteristic being the level of competencies that the sample employees possess.

Autonomy also relates to proactive behaviour (Grant & Ashford, 2008; Den Hartog & Belschak, 2012; Parker, et. al., 2006). The reasoning that follows from this may be that the measurement of autonomy related to the measurement on proactive behaviour in this research. In arguing that the proactive behaviour subscale may potentially have been inappropriate for use with this sample it may also be argued that moderating effects of autonomy, as specified in hypothesis two was unattainable due to this inherent problem with the proactive behaviour subscale. The same argument counts for the non-significant moderating effect of the RBSE subscales.

Another explanation for the results could be found in the idea that the results may support the research by Den Hartog and Belschak (2012). In this, they found that autonomy is a moderator in the relationship between transformational leadership and proactive behaviour, but that in order to make sense of the impact of transformational leadership in such conditions the level of individuals' RBSE need to be established. This is because, according to these researchers, these variables impact individuals with low and high RBSE differently. More specifically, the results suggest that simply displaying transformational leadership and providing these graduates with a high level of autonomy is not going to simply result in increased proactive behaviour. In hypothesis four the addition of RBSE to this situation is addressed directly. This is one explanation for the result when disregarding the consideration that transformational leadership (performance) may resemble characteristics of transactional leadership.

A different explanation for the result takes into consideration that transformational leadership (performance) resembled transactional leadership (Bass, 1991). Den Hartog and Belschak's (2012) findings imply that the autonomy/RBSE context or influence is applicable for transformational leadership and not transactional leadership. The results of this researcher's study may suggest that the relationship between transactional leadership and proactive behaviour is moderated by autonomy but that the impact of transactional leadership on proactive behaviour in this context is non-significant. This means, for example, that when managers provide high autonomy to their graduates, with the aim of increasing their proactive behaviour, while also displaying transactional leadership as measured in this study, a significant increase in proactive behaviour may not be realised.

Autonomy as moderator in the relationship between transformational leadership (inspirational) and proactive behaviour

It was found that job autonomy did not moderate the relationship between transformational leadership (inspirational) and proactive behaviour. The results suggest that the graduates in this research who experienced higher levels of autonomy within the context of transformational leadership (inspirational) did not necessarily display higher levels of proactive behaviour when compared to those in a low autonomy situation.

In considering an explanation for this result, the research by Den Hartog and Belschak (2012) was considered again. This is similar to the argument above, in that the potential moderating effects of autonomy in the identified relationship should be considered within the context of RBSE. Hypothesis four considered the effect of RBSE in this situation.

Another potential explanation for the non-significant findings can be found in the content of the proactive behaviour and job autonomy subscales. As discussed above, these subscales may have been inappropriate for use within an entry-level role graduate context. The reader can refer back to the discussion above that details reasons as to why these subscales could potentially be inappropriate for use with the sample in this research.

The sample size may also have played a role in this result. Again, a low KMO was achieved when determining the suitability of the job autonomy subscale for exploratory factor analysis. This may have compromised the results. A larger sample may have been able to establish a more credible result.

Hypothesis 3

RBSE (task-related or people-related) as moderator in the relationship between transformational leadership (inspirational) and proactive behaviour

Hypothesis three is different to the hypotheses presented by Den Hartog and Belschak (2012). In this research it was specifically hypothesised that RBSE, isolated from the consideration of autonomy, would moderate the relationship between transformational leadership (inspirational or performance) and proactive behaviour. The results of this analysis do not support this. Den Hartog and Belschak found that consideration need to be given to both RBSE and autonomy in order to be able to adequately establish whether the display of transformational leadership leads to an increase in proactive behaviour. This hypothesis did not take autonomy into account.

As transformational leaders set increasingly high goals for employees, and facilitate achievement of these goals and the vision through constantly building confidence of their employees (Den Hartog & Belschak, 2012) it was expected that the relationship between transformational leadership (inspirational) and proactive behaviour would be stronger for graduates with higher levels of task-related and people-related RBSE. Support for this was however not found in the results.

Considering the context within which graduates operate their managers may be reluctant to provide them with challenging goals as they are still building competence within their roles. This means that early in their careers they may have been provided with simple goals that were easily achievable. This may mean that even in cases where transformational leadership (inspirational) may have been displayed, the goals provided to the graduates may not have been aligned with the displayed leadership. Considering this it may also be the case that graduates may not have received many opportunities to display proactive behaviour as their managers may not have provided them with goals that communicated this expectation. This may therefore mean that

graduates high in RBSE may not have behaved more proactively than their lower RBSE counterparts as a result of the circumstances within which they operated.

It was found that neither task-related nor people-related RBSE moderated the relationship between transformational leadership (performance) and proactive behaviour. One potential explanation for this result could be that transformational leadership (performance) denoted transactional leadership, as theoretically the display of the behaviour was dependent on the graduate's performance (Bass, 1991). Theoretically, transactional leadership may not promote an increase in proactive behaviour and RBSE should therefore potentially not be expected to moderate the relationship between the two variables (Den Hartog & Belschak, 2012).

A similar argument posed about the proactive behaviour subscale can be established for the RBSE subscales which may provide another reason for the non-significant results. As these graduates may still be in the process of building a number of job relevant competencies the use of RBSE subscales may be inappropriate as RBSE specifically focuses on confidence related to duties that go beyond the technical demands of the graduate's job (Parker, 1998). Within the context of entry-level graduate roles the use of a self-efficacy subscale may be more appropriate as this construct is the result of an individual's cognitive appraisal of his or her competence with regards to completing certain activities (Parker, 1998). This construct would thus focus more specifically on a graduate's confidence in succeeding in job-related goals.

Hypothesis 4

Transformational leadership is positively related to employee proactive behaviour in low job autonomy low RBSE situations. Transformational leadership is positively related to employee proactive behaviour in high job autonomy high RBSE situations

All three-way interactions were found to be non-significant. The reader may refer back to the results section to view the four analyses containing these interaction terms. The results provide a lack of support for the moderated effects of autonomy and RBSE (task and people-related) in the relationship between transformational leadership (inspirational or performance) and proactive behaviour. Thus, in the context of this sample (graduates in entry-level roles) this research shows that transformational leadership (inspirational or performance) does not lead to higher levels of proactive behaviour in low autonomy, low RBSE (task or people-related) situations as well as in high autonomy, high RBSE situations. These results differ from those found by Den Hartog and Belschak (2012). The potential explanations for these results are stipulated in the discussion on hypothesis two and three results above. The reader is requested to refer back to this discussion above.

CHAPTER 5: LIMITATIONS, RECOMMENDATIONS AND IMPLICATIONS

Limitations of the study and recommendations for future research

This section identifies the limitations of this research and prescribes a number of recommendations for future research on this topic. There are a number of potential actions that researchers who are interested in furthering this study can adopt.

This research was aimed at entry-level graduates employees in various industries in South Africa. It specifically looked at individuals who had three years or less experience. Even though different avenues were utilised to obtain a large sample size only a small sample was attained. This posed a major limitation. As a result the findings of this study cannot be generalised to the general South African entry-level graduate employee population. It is suggested that future researchers on this topic should aim to obtain a larger sample of this cohort to make the findings more generalisable. It is a difficult exercise to obtain access to entry-level graduate employees. A more aggressive and creative approach is advised when researchers want to have access to this cohort. One suggestion is for future researchers aiming to include this cohort in their research to personally interact with various HR professionals working for relevant organisation. While engaging with these individuals in, for instance, meetings, they should use the opportunity to introduce the study to them and discuss the benefits of the results of the study to the development of graduates in their businesses. In this way the researcher also gets an opportunity to build a relationship with these professionals which may be a mode of gaining trust in the researcher and his or her work. Another suggestion is to provide remuneration like a raffle draw for individuals who complete the study.

The unidimensionality of the autonomy and proactive behaviour scales posed another major limitation. These were obtained through enforced factor extraction. Thus, the unidimensionality of these scales are questioned.

Another major limitation is the derived transformational leadership scale. Through an exploratory factor analysis 14 of 22 items (more than 50%) of the initial transformational leadership scale items were deleted. It can therefore be questioned how much of the conceptual meaning of transformational leadership was also destroyed in the process. With a larger sample this could possibly have been avoided.

Preliminary analysis showed that the job autonomy subscale had a KMO of below the suggested 0.6 and the final scale had a Cronbach's alpha below .7. Lumpkin et. al.'s (2009) job autonomy scale was used for this study. It would be suggested that a larger sample may be able to address this problem. Additionally, other well-researched job autonomy scales can also be utilised in future research. One of this is the scale identified by Hackman and Oldham (1980).

Subscales that are more relevant to entry-level graduate roles can be used. A more appropriate proactive behaviour subscale can be used. This subscale should focus on measuring proactive behaviour whilst having a regard for the notion that graduates are still building job relevant competencies that are critical to their successful performance in their roles. It also proposed that a self-efficacy subscale should be used instead of the RBSE subscales used in this study. Self-efficacy is context specific and therefore researchers can use Bandura's (2006) recommendations on how to contruct a self-efficacy scale that is suitable for an entry-level graduate context.

With regards to RBSE, new variables were obtained through this study that focused on confidence related to completing work tasks successfully and working successfully with people to complete job-related activities. It is recommended that future research be undertaken to gain a better theoretical and practical understanding of these two variables within the entry-level graduate context. The development of additional scale items for these two measures may also be important.

Improvement may also be required with regards to the demographic data collected in the survey. Additional questions regarding the industries in which graduates were employed could provide insight as to whether differences in proactive behaviour and its antecedents exist in the different industries. This analysis would be highly dependent on obtaining a large sample.

It may be beneficial to include the approach of Den Hartog and Belschak (2012) by including a study that obtained information on graduate work behaviour from their managers. It is suggested that a similar approach is taken to specifically obtain managers' perception of graduate employees' level of proactive behaviour and RBSE. This inclusion of manager-rated measures can provide insight into the differences in perceptions of these constructs between managers and their graduate employees.

Implications for organisations, HR practitioners and managers of entry-level graduate employees

The key results of this dissertation show that RBSE and transformational leadership (inspirational) are significant antecedents in the development of proactive behaviour in entry-level graduate roles.

Employers who want to focus on having increasingly proactive graduate employees may want to put their efforts into the recruitment and selection of such candidates. HR practitioners and managers can collect information about candidates' self-efficacy related to completing work tasks and engaging with people for the completion of tasks or projects. Those employers who practice competency-based recruitment are able assess candidates' levels of self-efficacy or RBSE related to achievement in various activities at university level including assignments, projects, involvement in sports and extra-curricular activities with a particular focus on their self-belief related completing these activities. Additionally, psychometric assessments may also assist with obtaining an indication of their level of self-efficacy.

Regarding developing proactive behaviour in their entry-level graduate employees, HR professionals and managers can work together in order to promote their employees' task-related and people-related RBSE. Managers can specifically focus on providing employees with tasks and projects that provide employees with the opportunity to achieve success within various projects that extend beyond the technical skills required in their role. These activities can also include working with

people in order to improve their people-related RBSE. Managers may be able to improve their employees' RBSE by providing coaching to their staff that taps into the development of their RBSE. In these conversations and general conversation with employees they can communicate their belief in the employee with the attempt of inspiring the employee.

HR practitioner and managers can provide graduate employees with training that promotes the development of various skills related to completing tasks and working successfully with other professionals. These training interventions can include curriculum aimed at developing, amongst other, the following skills: planning, time management, self-management, professional communication, professional etiquette, initiative and teamwork. Developing these skills quickly may allow graduates to build greater self-efficacy sooner in the professional capacity.

Although job autonomy have been identified in literature as an important factor to focus on in order to improve proactive behaviour the results of this study, even though interpreted with caution, suggest that employers may want to focus less on providing these graduate employees with job autonomy and more on building their self-efficacy. It however makes sense, as stipulated in the research by Den Hartog and Belschak (2012) that employers may want to assess their graduates' level of RBSE before increasing the autonomy attached to their roles.

CONCLUSION

Does Den Hartog and Belschak's (2012) model on the antecedents of proactive behaviour hold within an entry-level graduate context? This dissertation provided evidence that it potentially may not. A total of 76 graduates in entry-level positions in various industries in South Africa participated in this survey. The following subscales were used to measure the various constructs studied: (1) transformational leadership, (2) job autonomy, (3) RBSE, and (4) proactive behaviour.

Four hypotheses were tested. Two of these hypotheses were obtained from the Den Hartog and Belschak (2012) study. These two included the following hypotheses:

(1) *Hypothesis 1: Transformational leadership, job autonomy and RBSE are positively related to proactive behaviour,*

(2) *Hypothesis 4: Transformational leadership is positively related to employee proactive behaviour in low job autonomy low RBSE situations. Transformational leadership is positively related to employee proactive behaviour in high job autonomy high RBSE situations.*

Two additional hypotheses were included in this dissertation. These are:

(3) *Hypothesis 2: Autonomy moderates the relationship between transformational leadership and proactive behaviour in that in a high job autonomy context transformational leadership leads increased proactive behaviour.*

(4) *Hypothesis 3: RBSE moderates the relationship between transformational leadership and proactive behaviour in that high RBSE individuals display higher levels of proactive behaviour when exposed to transformational leadership.*

A total of 76 graduates in entry-level positions were included in the sample of the study and completed the survey. All subscales, except job autonomy met the requirements for exploratory factor analysis. Exploratory factor analyses were however conducted on all four subscales. The results of the factor analyses offered six subscales, which formed the subscales that we used to conduct further analyses. These subscales included transformational leadership (inspirational), transformational leadership (performance), job autonomy, task-related RBSE, people-related RBSE,

and proactive behaviour. The result of the validity and reliability analyses showed that all six subscales were found to be valid and reliable measures of their constructs even though the Cronbach's alpha of the job autonomy, people-related RBSE and proactive behaviour subscales were between 0.6 and 0.7. Descriptive statistics and analyses to answer the four hypotheses were conducted.

The results of the study supported hypothesis 1 with regards to transformational leadership (inspirational), task-related RBSE, and people-related RBSE. Transformational leadership (performance) and job autonomy did not correlate positively and significantly with proactive behaviour.

The results did not support hypothesis 2. What was interesting in this finding however was that a significant moderating effect was found for autonomy in the relationship between transformational leadership (performance) and proactive behaviour. The effect of transformational leadership (performance) on proactive behaviour in these moderating circumstances was however non-significant.

Hypothesis three was not supported by the results. Even though RBSE was not a moderator in the relationship between transformational leadership and proactive behaviour, the results showed that RBSE had a direct effect on proactive behaviour. It was mainly discussed that a potential reason for the results could be that perhaps graduates are not provided with the adequate opportunities and context to display proactive bahaviour therefore those individuals high in proactive behaviour may not have behaved more proactively than their low RBSE counterparts. It was also argued that potentially the RBSE subscale may be less relevant to graduate employees in entry-level role and perhaps a self-efficacy subscale would be more relevant and makes sense as a substitute for RBSE in the model of Den Hartog and Belschak (2012).

Hypothesis four was not supported by the results. One of the potential reasons that the results differ from those in Den Hartog and Belschak's (2012) study is the difference in sample characteristics. Another includes the differences in subscale items used. It was also considered that potentially the dynamics of proactive behaviour within an entry-level graduate context might differ from that of proactive behaviour with a

general employee context. Therefore the subscale items may have been less relevant to the sample. It was suggested a more suitable proactive behaviour subscale might need to be developed.

It was recommended that those who want to further this research could consider the use of different scales. In some cases these scales may have to be developed for a graduate context to make it more appropriate. These include a more appropriate job autonomy and proactive behaviour scale and the use of a self-efficacy scale instead of an RBSE scale.

It was recommended that human resources professionals and line managers who work with graduates should consider building their self-efficacy and RBSE by means of coaching, training and development of both soft skills and technical skills that are critical to succeeding within a role.

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Appendix A

Initial email sent to organisations and potential participants

Participation requested: UCT Organisational Psychology Masters research

Good day, my name is Heinrich Minnaar and I am currently completing a Master's degree in Organisational Psychology at the University of Cape Town (UCT).

As part of my studies I am completing a research dissertation. My interest lies in the development of graduate employees and my dissertation topic is as follows:

"*Transformational leadership, autonomy and role-breadth self-efficacy: their influence on proactive behaviour in entry-level graduate roles*".

I am currently canvassing for graduate employees to participate in my study.

Please consider disseminating my survey to your graduates employed since 2012. The completion of the survey is unrelated to the actual company in which the graduate is employed. The graduate is not asked to identify their employer and there will be no way of linking respondent to organisation. Responses will be entered on an electronic survey platform that strips all identifiers.

If you are willing to assist me **please send me a response to this email address**. I will require a contact person from your company to liaise with. I will send this person an email introducing the study and containing a link to the URL where the study is hosted. The idea is that the company liaison will forward the mail to the relevant graduate employees. In this way I will have no direct contact with them.

At this stage all that is required is **confirmation of your willingness to assist me.**

It is important that I disclaim that I am a senior HR consultant for The Foschini Group (TFG) but given the anonymity and confidentiality of the survey my affiliation will in no way compromise this empirical research project.

Feel free to contact me if you have any queries.

Regards,

Heinrich Minnaar
minnaar.heinrich@gmail.com

Follow-up email

Participation requested: UCT Organisational Psychology Masters research

Good day, my name is Heinrich Minnaar and I am currently completing a Master's degree in Organisational Psychology at the University of Cape Town (UCT).

As part of my studies I am completing a research dissertation. My interest lies in the development of graduate employees and my dissertation topic is as follows:

"*Transformational leadership, autonomy and role-breadth self-efficacy: their influence on proactive behaviour in entry-level graduate roles*".

I am currently canvassing for graduate employees to participate in my study. In my sample I am including graduates who have been employed in professional roles since 2012, 2013 and 2014. Thus, the pool of graduates who I am including in the research graduated during 2011, 2012 or 2013.

If you fall into this category I would appreciate 10 minutes of your time to complete my online survey. Here is the survey link:

https://ucpcommerce.eu.qualtrics.com/SE/?SID=SV_7VvuYwOIbdpKabz

The survey closes the evening of 15 August. Your participation is voluntary and anonymous.

Thank you for considering participation in my research project. You may contact me if you have any questions regarding the above.

Regards,

Heinrich Minnaar

minnaar.heinrich@gmail.com

Online survey cover page

Organisational Psychology Masters Research Project

"Transformational leadership, job autonomy and role-breadth self-efficacy: their influence on proactive behaviour in entry-level graduate roles."

Dear Participant

You are invited to participate in an Organisational Psychology Masters research project. The research focuses on the role of transformational leadership, job autonomy and role-breadth self-efficacy in fostering proactive behaviour in graduate employees.

This survey research consists of 52 questions in total. It is my request that you complete the questions with the response that represents your most honest answer. Please note that participation in this research is voluntary. No penalty will be implemented if you choose not to complete it.

If you choose to complete the survey it will take you approximately 10 minutes to finish. Please complete the survey on or before **15 August 2014**.

You will not be requested to supply any identifiable information, ensuring anonymity of your responses. You are free to withdraw from the study at any time. This research has been approved by the University of Cape Town's Commerce Faculty Ethics in Research committee. All responses will be confidential and used for the purposes of this research only.

Should you require any information about your participation in the study please contact your company representative who will contact the researcher.

Thank you in advance for your participation.

By continuing to the next page you are providing your consent for the researcher to include your anonymous responses as part of the research data. You can continue to the next page by clicking the arrow in the bottom right corner of this page.

Research questionnaire

Statement	1 Strongly agree	2 Agree	3 Neither agree nor disagree	4 Disagree	5 Strongly disagree
1. My manager supports the efforts of individuals and/or teams that work autonomously.					
2. My manager expects individuals and/or teams pursuing business opportunities to justify their actions throughout the development process; (R)					
3. In general my manager believes that individuals or workgroups operating independently, that is outside the organisational chain of command, get the best results rather than operating within the traditional hierarchy					
4. In general, my manager believes that individuals and/or teams are most effective if their goals and performance targets are set by their supervisors (R)					
5. In general, my manager believes that individuals or work groups operate independently. My manager believes that the best results occur when individuals and/or teams decide for themselves what business opportunities to pursue.					
6. My manager expects that individuals and/or teams use existing strategies and standard operating procedures as a basis for decision making as compared with being encouraged to “think outside the box” (R)					
7. In my organisation individuals or teams pursuing business opportunities make decisions on their own without constantly referring to their supervisors					

Statement	1	2	3	4	5
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
8. In my organisation the management team plays a major role in identifying and selecting the entrepreneurial activities my firm pursues (R)					
9. I actively confront problems.					
10. Whenever something goes wrong, I search for a solution immediately.					
11. Whenever there is a chance to get actively involved, I take it.					
12. I take initiative immediately even when others don't.					
13. I use opportunity quickly in order to attain my goals					
14. Usually I do more than I'm asked to do.					
15. I am particularly good at realising ideas.					
16. I would feel confident to represent my work area in meetings with senior management.					
17. I would feel confident writing a proposal to spend money in my work area.					
18. I would feel confident analysing a long-term problem to find a solution.					
19. I would feel confident to make suggestions to management about ways to improve the working of my section					
20. I would feel confident to help set goals and targets in my area.					
21. I would feel confident to design new procedures for my work area.					

Statement	1	2	3	4	5
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
22. I would feel confident to contact people outside of the company (e.g. suppliers) to discuss problems					
23. I would feel confident to present information to a group of colleagues.					
24. I would feel confident to contribute to discussions about the company's strategy.					
25. I would feel confident to visit people from other organisations to suggest doing things differently					
26. My manager makes me feel good around him/her.					
27. My manager commands respect from everyone.					
28. In my mind, my manager is a symbol of success and accomplishment.					
29. My manager makes me proud to be associated with him/her.					
30. My manager has a special gift for seeing what is really important for me to consider.					
31. My manager increases my optimism for the future.					
32. My manager inspires loyalty to the organisation.					
33. I have complete faith in my manager.					
34. My manager excites us with his/her visions of what we may be able to accomplish if we work together					
35. My manager gives me a sense of overall purpose.					

Statement	1 Strongly agree	2 Agree	3 Neither agree nor disagree	4 Disagree	5 Strongly disagree
36. My manager has a sense of mission, which he/she transmits to me.					
37. My manager is satisfied when I meet the agreed-upon standards for good work.					
38. I earn credit with my manager for doing a job well.					
39. My manager finds out what I want and tries to get it for me.					
40. You can count on him/her to express his/her appreciation when you do a good job.					
41. My manager gives personal attention to members who seem neglected.					
42. My manager has provided me with new ways of looking at things, which used to be a puzzle for me.					
43. My manager enables me to think about old problems in new ways.					
44. My manager gets me to rethink the way I do things.					
45. My manager expresses confidence that goals will be achieved.					
46. My manager talks in a way that makes me believe I can succeed.					
47. My manager talks enthusiastically about what needs to be accomplished.					

Note: Reversed-scored items are indicated with "(R)". Job autonomy items are items 1 to 8 derived from Lumpkin, Cogliser & Schneider (2009). Proactive behaviour items 9 to 15 are derived from Frese, Fay, Hilburger, Leng & Tag (1997). RBSE items 16 to 25 derived from Parker (1998). Transformational leadership items derived from Bycio, Allen and Hackett, 1995 (Items 26 to 43), and Bass and Avolio (1995, as cited in Callow, Smith, Hardy, Arthur & Hardy (2009) (Items 44 to 47).

Demographic information:

Please answer the following questions.

48. How old are you? (Please state your age in years)
49. What is your race?
    - White
    - Black
    - Coloured
    - Asian
    - Indian
    - Mixed race
    - Other
    - Prefer not to answer

50. What is your gender?
    - Male
    - Female
    - Prefer not to answer
51. How long have you been working in this organisation? (Please state your answer in years)
52. During which year did you complete your last tertiary qualification?

Appendix B

Table B1

Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity Results for Four Subscales.

	KMO	Bartlett's Test of Sphericity	df
Job autonomy	0.565	60.68*	28
Proactive behaviour	0.683	80.735*	21
RBSE	0.766	232.488*	45
Transformational leadership	0.888	1396.363*	231

*$p < 0.001$

Appendix C

Table C1

Factors Extracted for Each of the Four Rounds of Principal Axis Factoring for the Job Autonomy Subscale

	Eigen value	Explained variance (%)	Items that loaded significantly	Items removed
				Cross-loading*
Round 1				
Factor 1	2.076	25.95	1, 3, 5, 6	
Factor 2	1.277	15.96	1, 6, 7, 8	
Factor 3	1.135	14.18	2, 4	
Round 2[a]				
Factor 1	2.076	25.95	1, 3, 5, 7, 8	8
Factor 2	1.277	15.96	2, 4, 6, 8	8
Round 3				
Factor 1	1.974	28.206	1, 3, 5, 7	
Factor 2	1.209	17.276	2, 4,	
Round 4[b]	1.974	28.206	1, 2, 3, 5, 7	

***Items removed based on a cross-loading (significant loading on more than 1 factor with a difference in loadings being <.30.

[a]Two factors to be extracted specified.

[b]1 factor to be extracted specified.

Table C2

Eigen values, Explained Variance and Rotated Factor Structures and Loadings for Each Round of the Exploratory factor analysis for the Job Autonomy Subscale

	Round 1			**Round 2**		**Round 3**		**Round 4**
	Factor Structure and Loadings			**Factor Structure and Loadings**		**Factor Structure and Loadings**		**Factor Structure Loadings**
	Factor 1	**Factor 2**	**Factor 3**	**Factor 1**	**Factor 2**	**Factor 1**	**Factor 2**	**Factor 1**
Eigen value	2.076	1.277	1.135	2.076	1.277	1.974	1.209	1.974
Explained Variance (%)	25.95	15.96	14.18	25.95	15.96	28.206	17.276	28.206
Item Number								
1	.492	.463		.696		.751		.735
2			-.801		.744		.728	-.371
3	.792			.644		.706		.723
4			.663		-.564		-.718	
5	.824			.745		.771		.702
6	-.333	.685			.409			
7		.589		.540		.475		.490
8		.577		.508	.377			

Table C3

Factors Extracted for Each of the Two Rounds of Principal Axis Factoring for the RBSE Subscale

	Eigen value	Explained variance (%)	Items that loaded significantly	Items removed
				Cross-loading*
Round 1				
Factor 1	3.989	39.893	1, 3, 4, 5, 6	1, 4, 6
Factor 2	1.305	13.048	4, 6, 7, 8, 9, 10	4, 6, 9
Factor 3	1.011	10.110	1, 2, 4, 9, 10	1, 4, 9
Round 2				
Factor 1	2.770	39.578	2, 3, 5, 6	
Factor 2	1.178	16.830	6, 7, 9, 10	
Round 2 revised				
Factor 1	2.770	39.578	2, 3, 5, 6	
Factor 2	1.178	16.830	7, 9, 10	

*Items removed based on a cross-loading (significant loading on more than 1 factor with a difference in loadings being <.30.

Table C4

Eigen values, Explained Variance and Rotated Factor Structures and Loadings for Each Round of the Exploratory factor analysis for the RBSE Subscale

	Round 1 Factor Structure and Loadings			Round 2 Factor Structure and Loadings		Revised Round 2 Factor Structure and Loadings	
	Factor 1	**Factor 2**	**Factor 3**	**Factor 1**	**Factor 2**	**Factor 1**	**Factor 2**
Eigen value	3.989	1.305	1.011	2.770	1.178	2.770	1.178
Explained Variance (%)	39.893	13.048	10.110	39.578	16.830	39.578	16.830
Item Number							
1	.502		.374				
2			.882	.366		.366	
3	.745			.797		.797	
4	.328	.442	.560				.
5	.850			.847		.847	
6	.684	.357		.697	.360	.697	.
7		.703			.719		.719
8		.727					
9		.408	.683		.661		.661
10		.700	.381		.811		.811

Table C5

Factors Extracted for Each of the Two Rounds of Principal Axis Factoring for the Proactive Behaviour Subscale

	Eigen value	**Explained variance (%)**	**Items that loaded significantly**
Round 1			
Factor 1	2.472	35.307	1, 2, 3, 5, 7
Factor 2	1.194	17.055	4, 6
Round 2[a]	2.472	35.307	1, 2, 3, 4, 5, 6, 7

[a]one factor to be extracted specified

Table C6

Eigen values, Explained Variance and Rotated Factor Structures and Loadings for Each Round of the Exploratory factor analysis for the Proactive Behaviour Subscale

	Round 1 Factor Structure and Loadings		**Round 2 Factor Structure and Loadings**
	Factor 1	**Factor 2**	**Factor 1**
Eigen value	2.472	1.194	2.472
Explained Variance (%)	35.307	17.055	35.307
Item Number			
1	.674		.624
2	.595		.654
3	.449		.550
4		.812	.657
5	.718		.547
6		.848	.463
7	.697		.637

Table C7

Factors Extracted for Each of the Three Rounds of Principal Axis Factoring for the Transformational Leadership Subscale

	Eigen value	Explained variance (%)	Items that loaded significantly	Items removed
				Cross-loading*
Round 1				
Factor 1	12.027	54.666	1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 18, 20, 21, 22	1, 5, 8, 9, 10, 11, 20,21, 22,
Factor 2	1.747	7.940	1, 5, 6, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22	1, 5, 9, 10, 11, 14, 16, 20, 21, 22,
Factor 3	1.337	6.078	4, 5, 6, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19	5, 8, 9, 10, 11, 14, 16, 18
Factor 4	1.078	4.901	2	
Round 2				
Factor 1	12.027	54.666	1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 18, 19, 20, 21	1, 5, 6, 9, 10, 11, 18, 19, 20, 21, 22
Factor 2	1.747	7.940	1, 5, 6, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22	1, 5, 6, 9, 10, 11, 16, 17, 18, 20, 21, 22
Factor 3	1.337	6.078	2, 8, 16, 17, 18, 19	16, 17, 18, 19
Round 3				
Factor 1	4.391	48.789	3, 4, 7, 8	
Factor 2	1.493	16.590	12, 13, 14, 15	

*Items removed based on a cross-loading (significant loading on more than 1 factor with a difference in loadings being <.30.)

Table C8

Eigen values, Explained Variance and Rotated Factor Structures and Loadings for Each Round of the Exploratory factor analysis for the Transformational Leadership Subscale

	Round 1 Factor Structure and Loadings				**Round 2 Factor Structure and Loadings**			**Round 3 Factor Structure and Loadings**	
	Factor 1	**Factor 2**	**Factor 3**	**Factor 4**	**Factor 1**	**Factor 2**	**Factor 3**	**Factor 1**	**Factor 2**
Eigen value	12.027	1.747	1.337	1.078	12.027	1.747	1.337	4.391	1.493
Explained Variance (%)	54.666	7.940	6.078	4.901	54.666	7.940	6.078	48.789	16.590
Item Number									
1	.664	.467			.701	.523			
2				.904			.595		
3	.782				.778			.820	
4	.800		.326		.823			.852	
5	.561	.356	.478		.623	.457			
6	.500	.418	.573		.584	.558			
7	.739				.759			.763	
8	.710		.456		.760		.377	.860	
9	.555	.378	.499		.618	.482			
10	.638	.415	.445		.687	.493			
11	.577	.382	.326		.602	.420			
12		.735				.669			.744
13		.844				.842			.903
14		.647	.440			.753			.748
15		.779	.367			.836			.832
16		.466	.705			.624	.512		
17		.338	.728			.488	.650		
18	.552		.596		.629	.428	.394		
19			.771		.415		.593		
20	.653	.553			.658	.550			
21	.530	.645			.567	.698			
22	.612	.541			.601	.509			

Appendix D

Table D1

Number of Items, Initial Internal Consistency and Item Discrimination Results for the Derived Subscales

Scale	Initial number of items	Initial Cronbach's Alpha	Range of Corrected item-total correlations	Final number of items[a]	Final Cronbach's Alpha	Range of Corrected item-total correlations
Job autonomy	5	.434	-.182 < r < .431	4	.608	.301 < r < .459
Task-related RBSE	4	.677	.295 < r < .611	3	.719	.492 < r < .658
People-related RBSE	3	.662	.433 < r < .562	3	.662	.433 < r < .562
Proactive behaviour	7	.674	.297 < r < .499	7	.674	.297 < r < .499
Transformational leadership (Inspiration)	4	.860	.597 < r < .853	4	.860	.597 < r < .853
Transformational leadership (Performance)	4	.859	.615 < r < .788	4	.859	.615 < r < .788

[a]Final number of items after removal of items with low corrected item-total correlations.

Table D2

Deleted Items and Their Respective Corrected Item-Total Correlations for Each Applicable Subscale

Subscale	Item Number	Item Statement	Corrected item-total Correlation
Job autonomy	2	My manager expects individuals and/or teams pursuing business opportunities to justify their actions throughout the development process.[a]	-.182
Task-related RBSE	2	I would feel confident writing a proposal to spend money in my work area.	.295

[a]Reversed-scored item

Appendix E

Table E1

Final Subscale Items, Final Factor Loadings and Corrected Item-Total Correlations for the Job Autonomy Subscale

Item number	Subscale Statement	Final Factor Loadings	Corrected Item-Total Correlation
1	My manager supports the efforts of individuals and/or teams that work autonomously	.735	.459
3	In general my manager believes that individuals or workgroups operating independently, that is outside the organisational chain of command, get the best results rather than operating within the traditional hierarchy	.723	.437
5	In general, my manager believes that individuals or work groups operate independently. My manager believes that the best results occur when individuals and/or teams decide for themselves what business opportunities to pursue	.702	.424
7	In my organisation individuals or teams pursuing business opportunities make decisions on their own without constantly referring to their supervisors	.490	.301

Table E2

Final Subscale Items, Final Factor Loadings and Corrected Item-Total Correlations for the Task-related RBSE Subscale

Item Number	Subscale Statement	Final Factor Loadings	Corrected Item-Total Correlation
3	I would feel confident analysing a long-term problem to find a solution	.797	.492
5	I would feel confident to help set goals and targets in my area	.847	.658
6	I would feel confident to design new procedures for my work area	.697	.507

Table E3

Final Subscale Items, Final Factor Loadings and Corrected Item-Total Correlations for the People-related RBSE Subscale

Item Number	Item Statement	Final Factor Loadings	Corrected Item-Total Correlation
7	I would feel confident to contact people outside of the company (e.g. suppliers) to discuss problems	.719	.433
9	I would feel confident to contribute to discussions about the company's strategy	.661	.436
10	I would feel confident to visit people from other organisations to suggest doing things differently	.811	.562

Table E4

Final Subscale Items, Final Factor Loadings and Corrected Item-Total Correlations for the Proactive Behaviour Subscale

Item Number	Item Statement	Final Factor Loading	Corrected Item-Total Correlation
1	I actively confront problems.	.624	.424
2	Whenever something goes wrong, I search for a solution immediately.	.654	.421
3	Whenever there is a chance to get actively involved, I take it.	.550	.330
4	I take initiative immediately even when others don't.	.657	.499
5	I use opportunity quickly in order to attain my goals.	.547	.316
6	Usually I do more than I'm asked to do.	.463	.297
7	I am particularly good at realising ideas.	.637	.463

Table E5

Final Subscale Items, Final Factor Loadings and Corrected Item-Total Correlations for the Transformational Leadership (Inspirational) Subscale

Item Number	Item Statement	Final Factor Loading	Corrected Item-Total Correlation
6	My manager increases my optimism for the future.	.820	.763
7	My manager inspires loyalty to the organisation.	.852	.597
10	My manager gives me a sense of overall purpose.	.763	.853
11	My manager has a sense of mission, which he/she transmits to me.	.860	.653

Table E6

Final Subscale Items, Final Factor Loadings and Corrected Item-Total Correlations for the Transformational Leadership (Performance) Subscale

Item Number	Item Statement	Final Factor Loading	Corrected Item-Total Correlation
12	My manager is satisfied when I meet the agreed-upon standards for good work.	.744	.615
13	I earn credit with my manager for doing a job well.	.903	.788
14	My manager finds out what I want and tries to get it for me.	.748	.665
15	You can count on him/her to express his/her appreciation when you do a good job	.832	.774

Appendix F

Table F1

Descriptive Statistics for the Six Subscales (N =76)

	Number of items	**Mean**	**Standard deviation**	**Minimum**	**Maximum**
Job autonomy	4	2.83	.61	1.25	4.75
Task-related RBSE	3	2.07	.68	1	4
People-related RBSE	3	1.89	.60	1	3.67
Proactive behaviour	7	1.94	.40	1	2.86
Transformational leadership (inspirational)	4	2.30	.86	1	4.25
Transformational leadership (performance)	4	2.30	.79	1	4.25

Appendix G

Table G1

Test for Normality for Proactive Behaviour Responses

Dependent variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Proactive behaviour	.101	76	.054	.978	76	.221

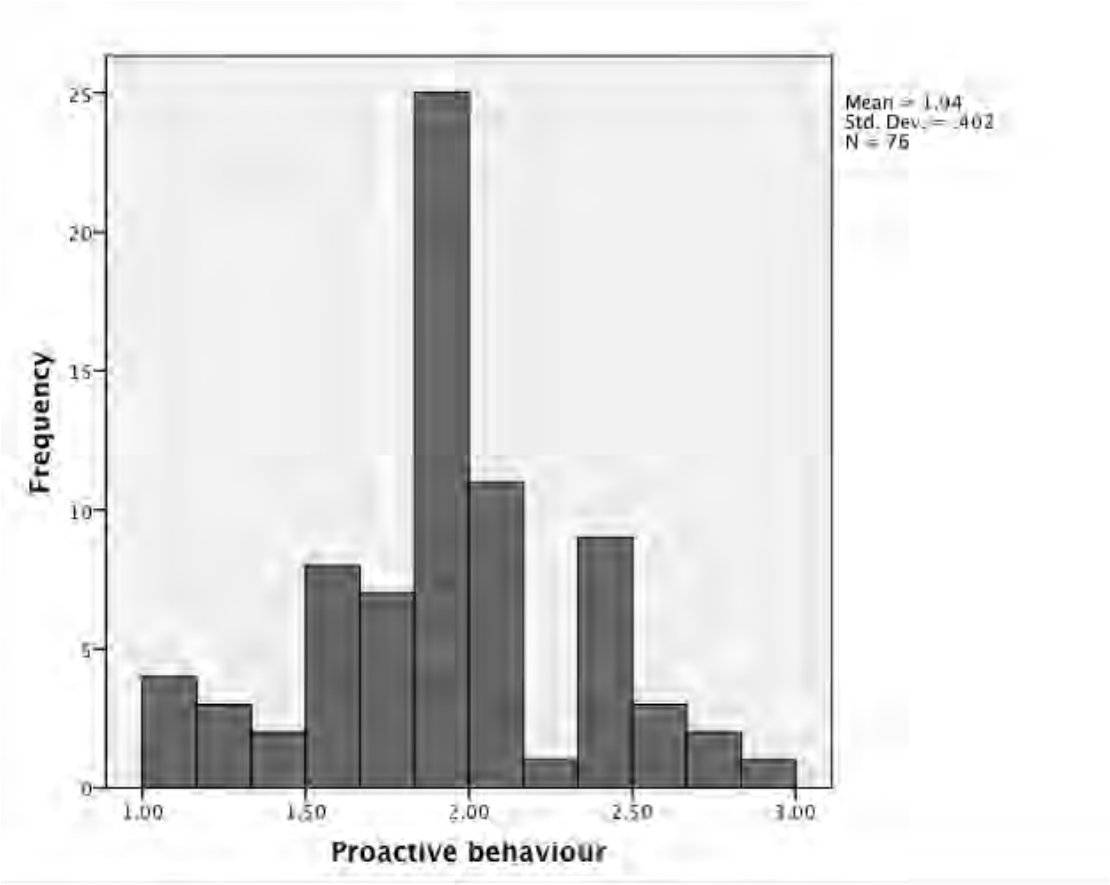


Figure G1. Histogram showing distribution of proactive behaviour responses

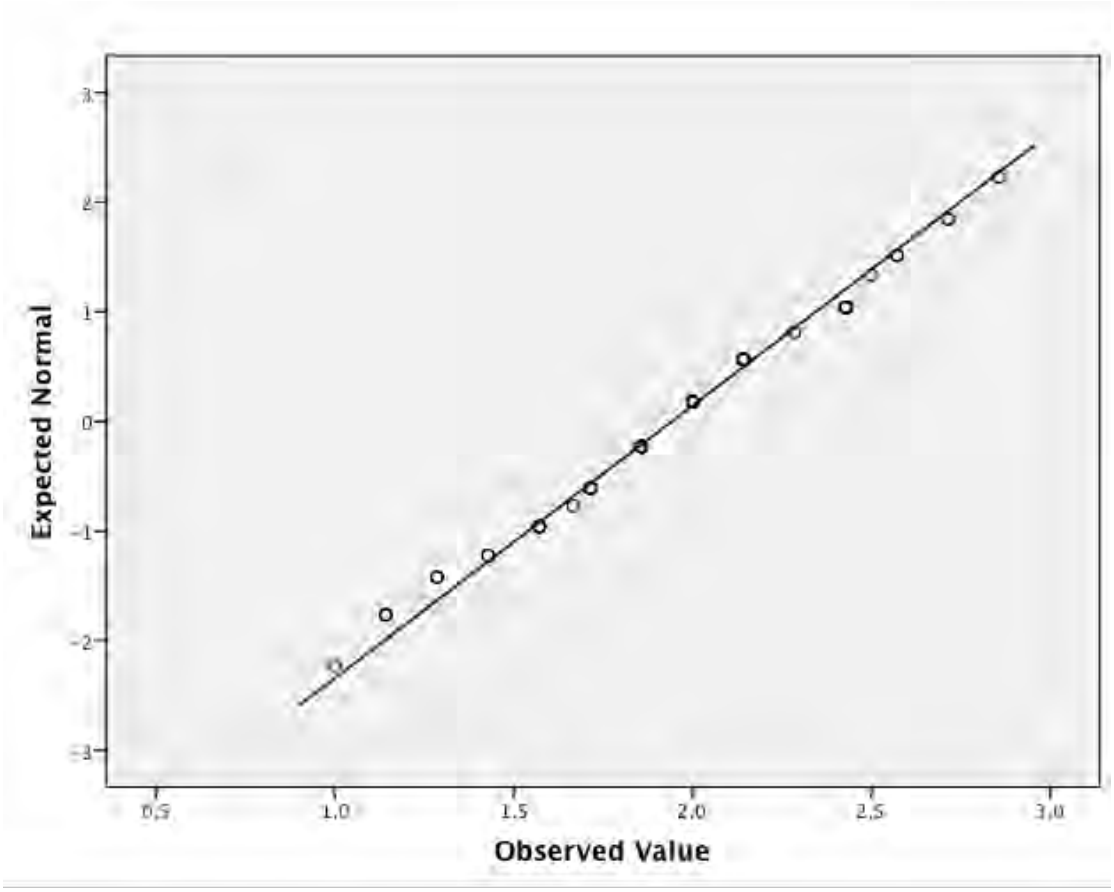


Figure G2. Q-Q Plot for proactive behaviour responses

Table G2

Test of Normality for Transformational Leadership (Inspirational) and Transformational Leadership (Performance) Responses

Independent variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Transformational leadership (inspirational)	.139	76	.001	.952	76	.006
Transformational leadership (performance)	.106	76	.035	.970	76	.066

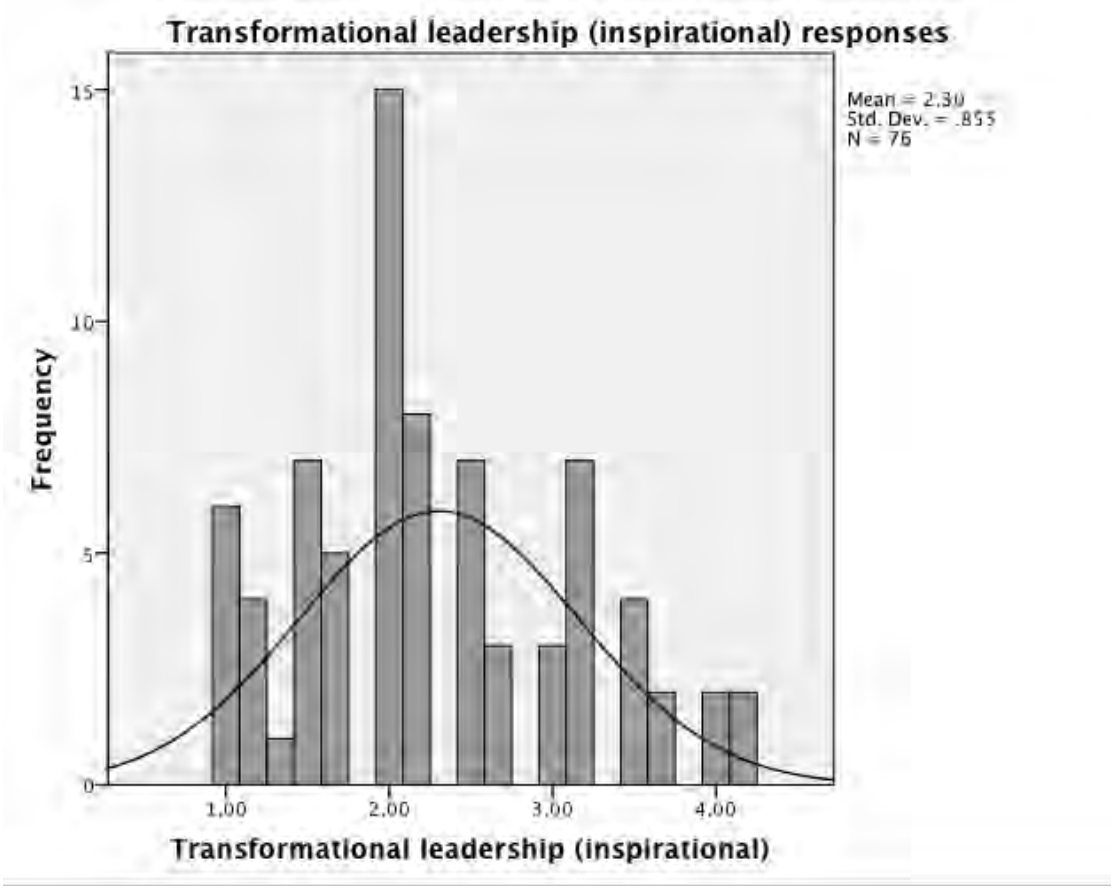


Figure G3. Histogram for transformational leadership (inspirational) responses

Figure G4. Histogram for transformational leadership (performance) responses

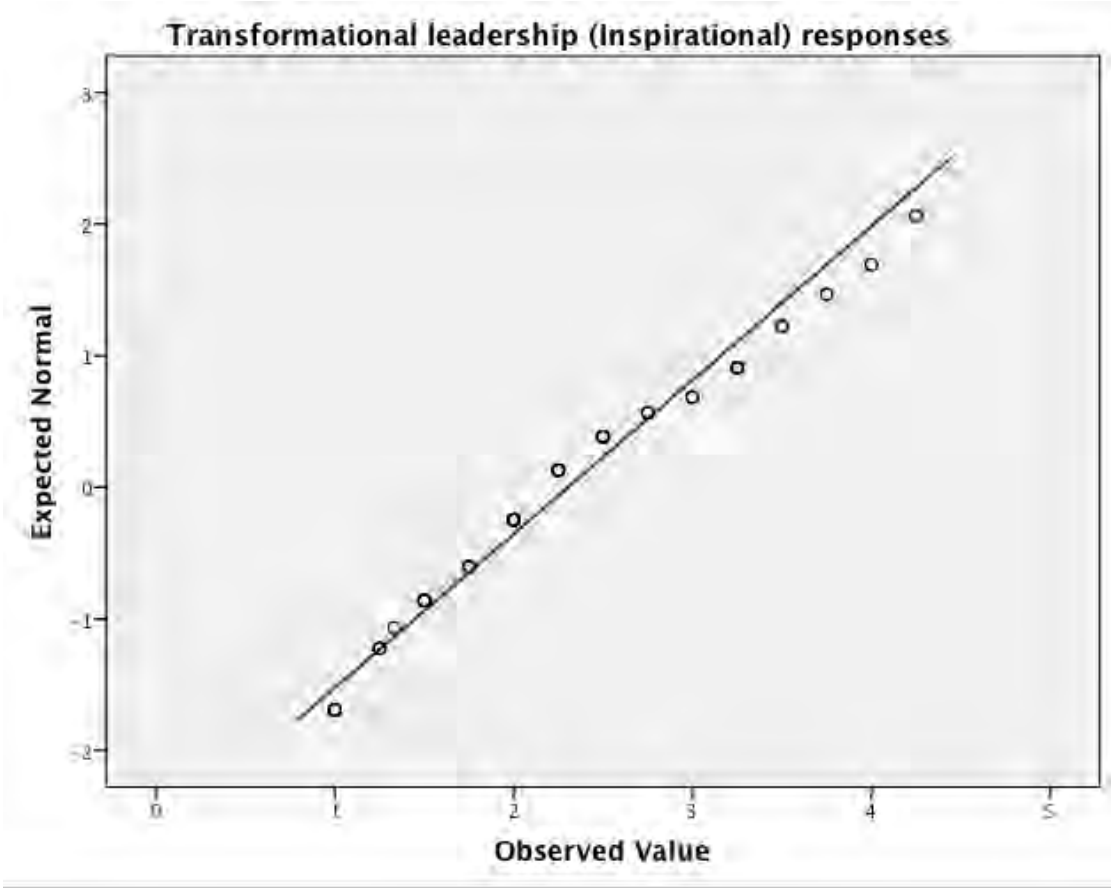


Figure G5. Q-Q plot for transformational leadership (inspirational) responses

Figure G6. Q-Q plot for transformational leadership (performance) responses

Table G3

Test of Normality for Job Autonomy Responses

Moderating variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Job autonomy	.121	76	.008	.978	76	.222

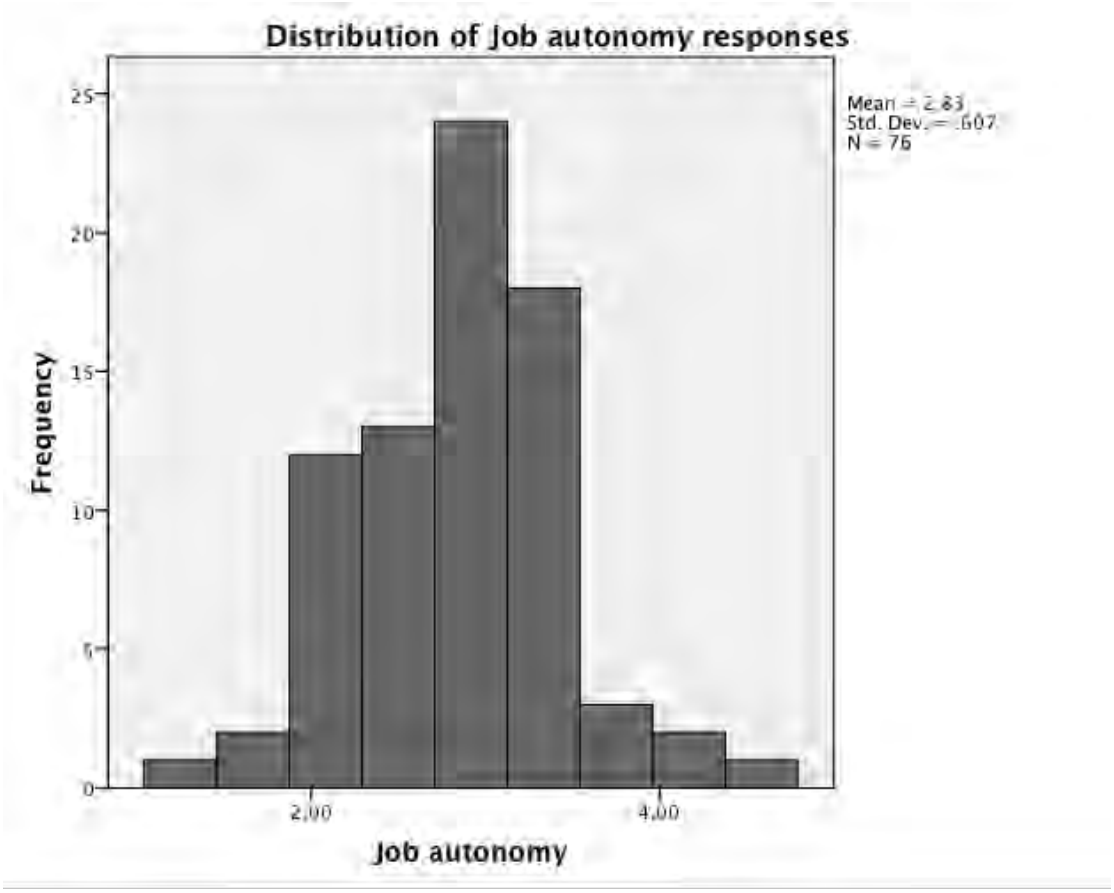


Figure G7. Histogram of job autonomy responses

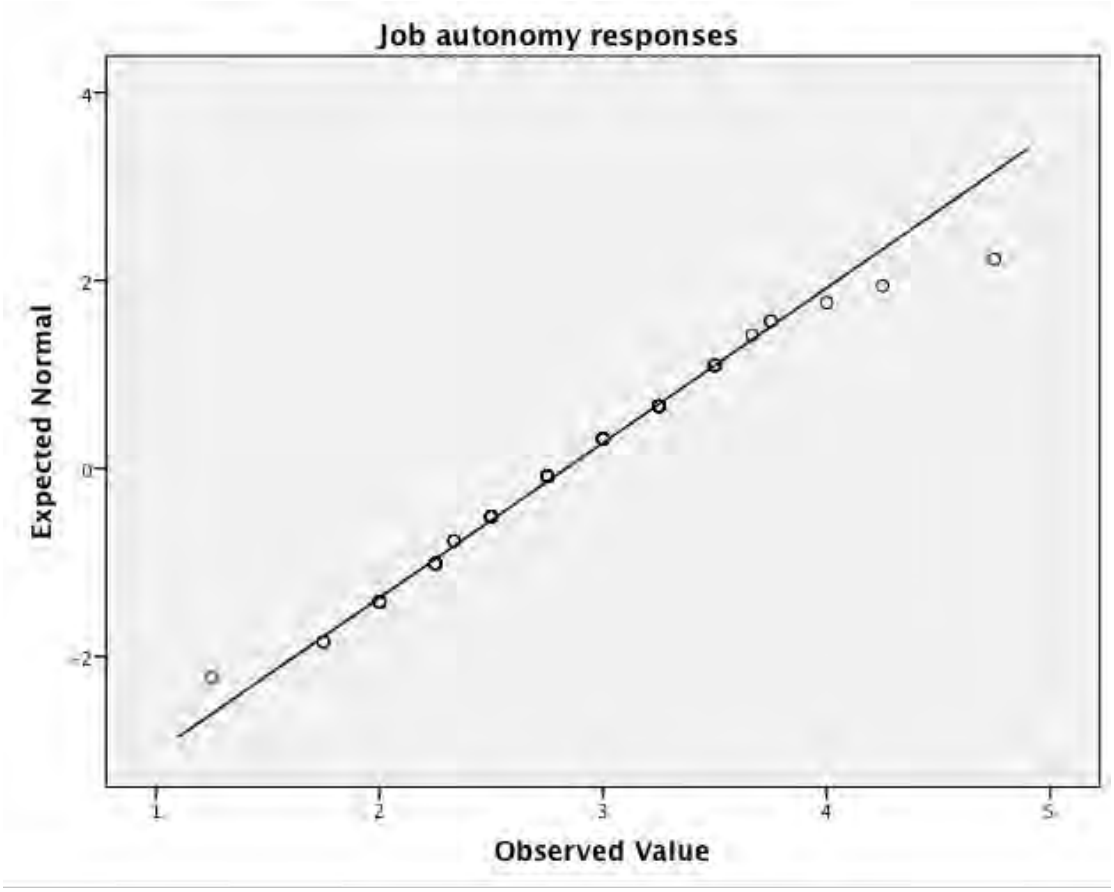
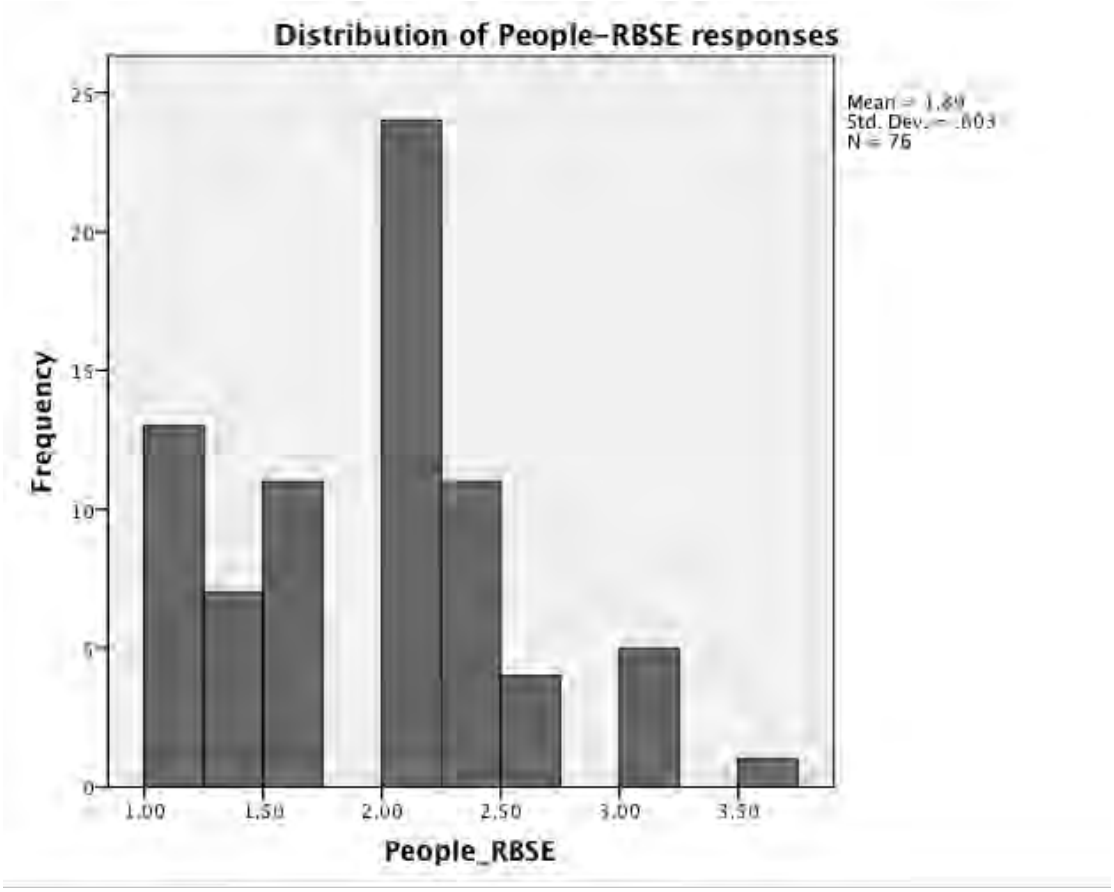


Figure G8. Q-Q plot of job autonomy responses

Table G4

Test for Normality for People-related RBSE and Task-related RBSE Responses

Moderating variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
People-RBSE	.166	76	.000	.933	76	.001
Task-RBSE	.183	76	.000	.937	76	.001



*Fig*ure *G9*. Histogram for people-related RBSE responses

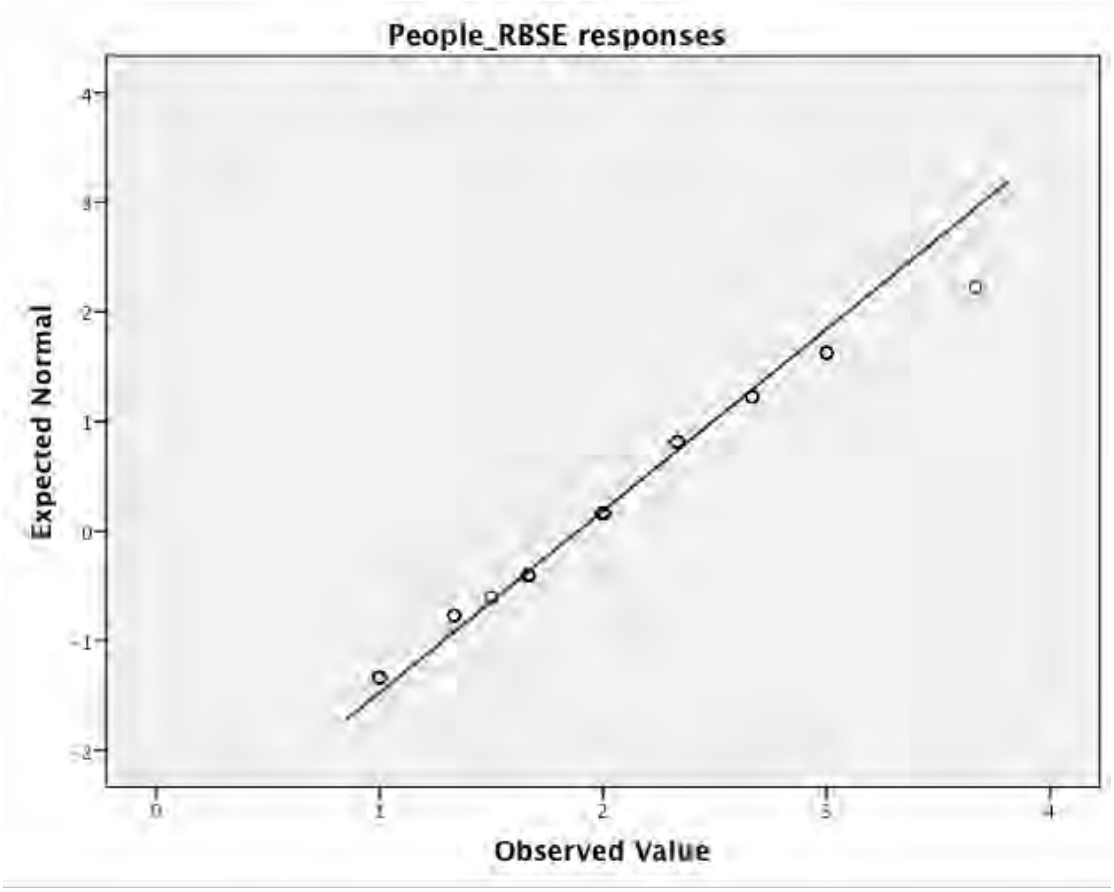


Figure G10. Q-Q plot of people-related RBSE response

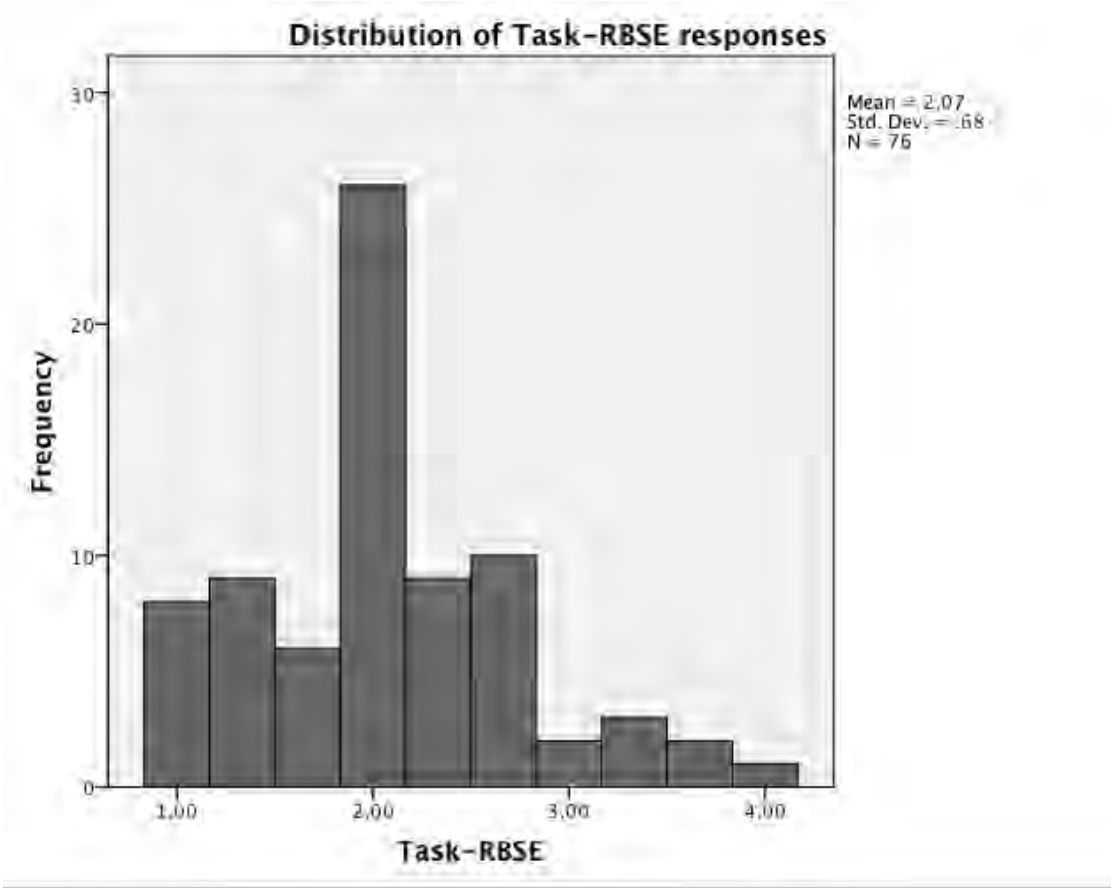


Figure G11. Histogram of task-related RBSE responses

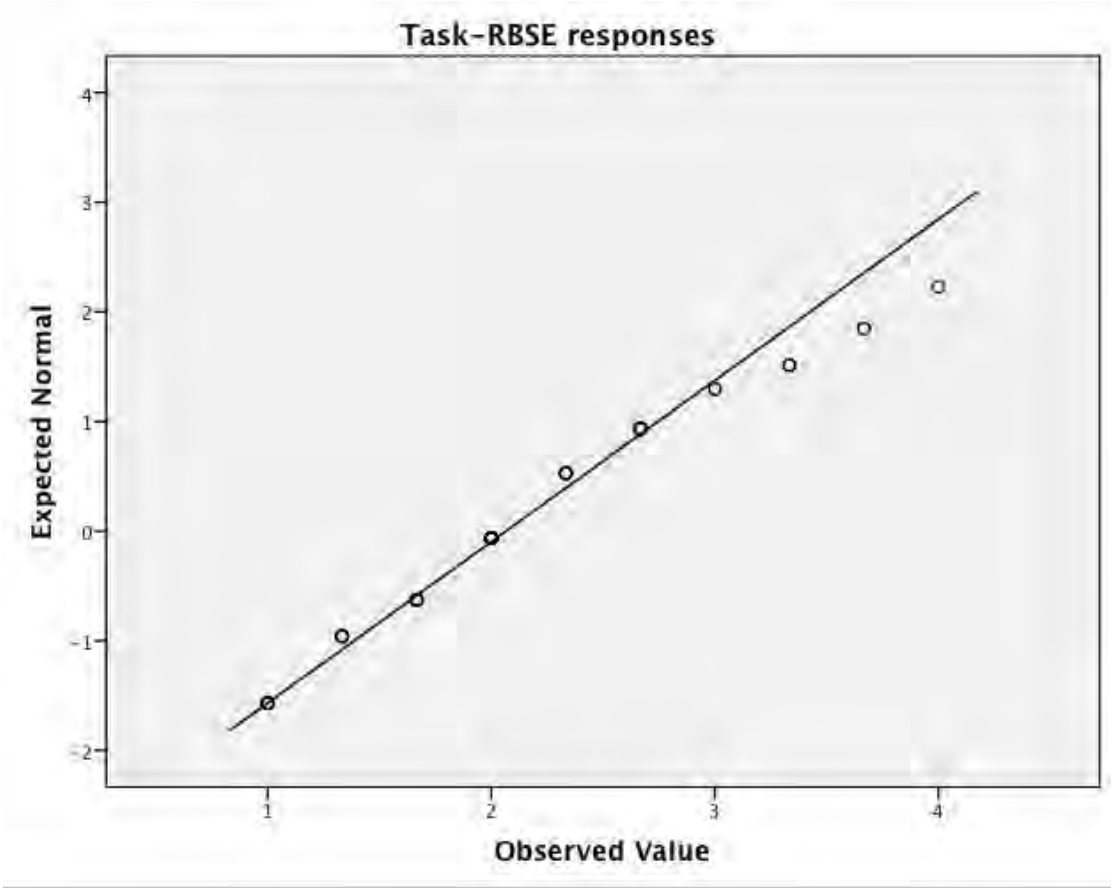


Figure G12. Q-Q plot for task-related RBSE responses

Appendix H

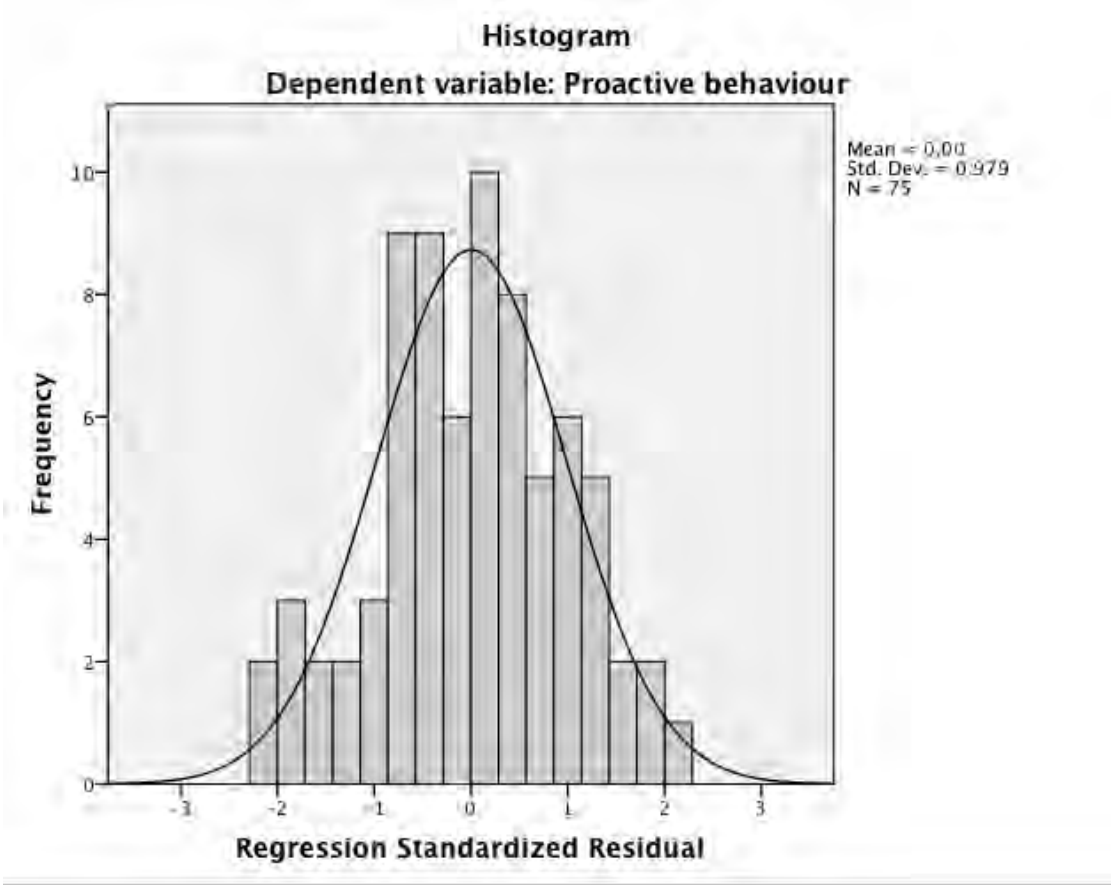


Figure H1. Histogram showing regression standardised residuals of proactive behaviour

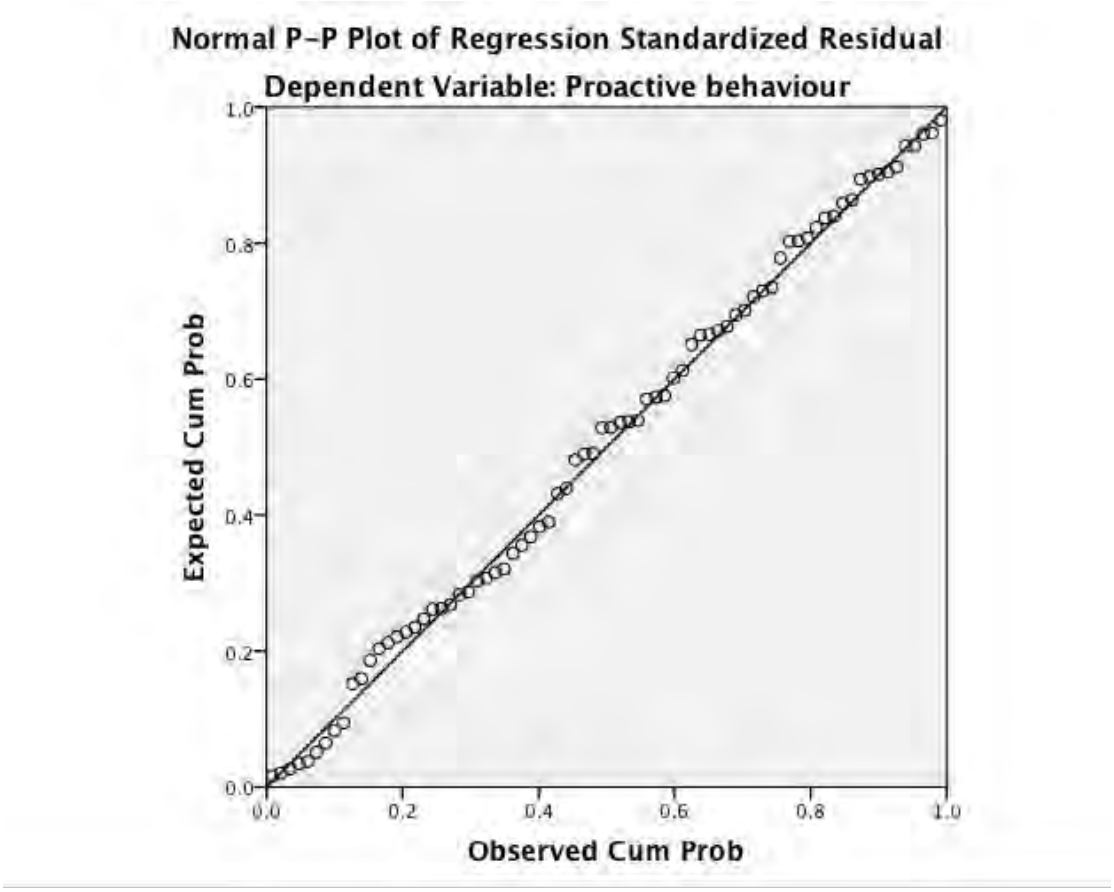


Figure H2. Normal probability plot of regression standardised residuals of proactive behaviour

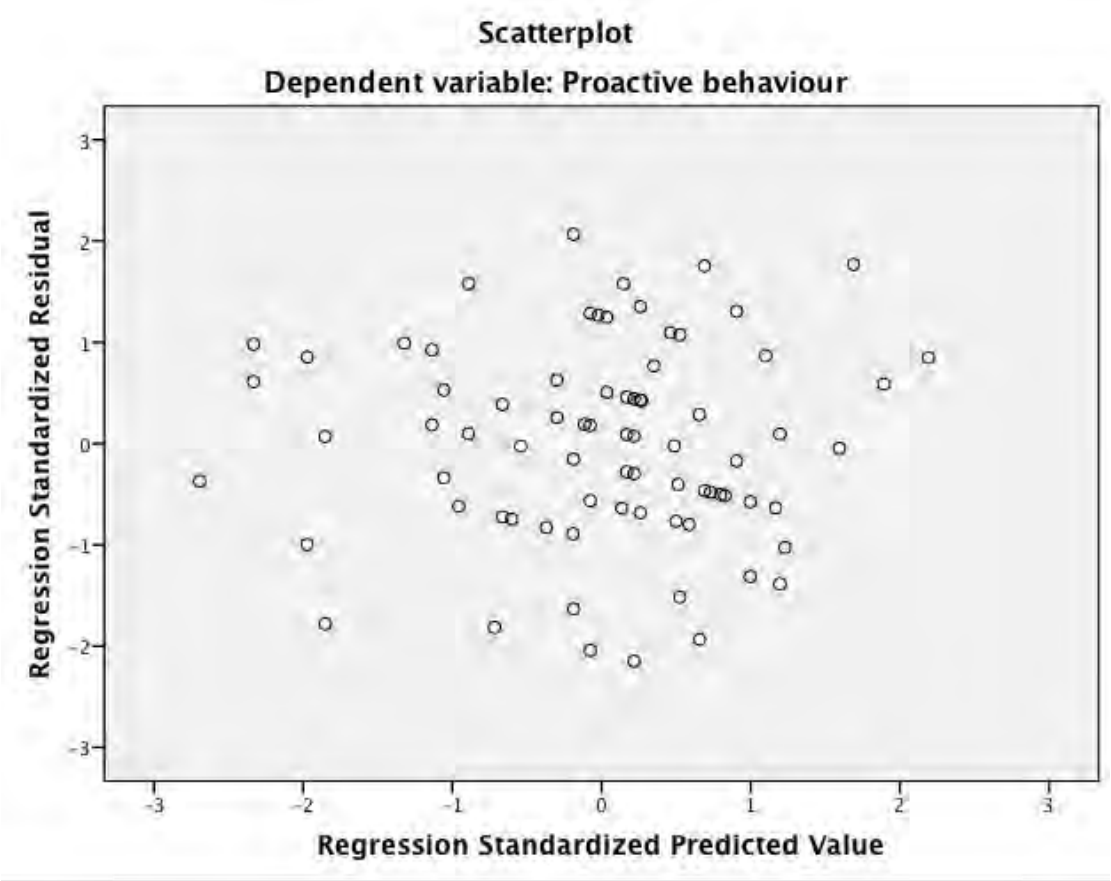


Figure H3. Scatterplot of regression standardised residuals against standardised predicted values of proactive behaviour

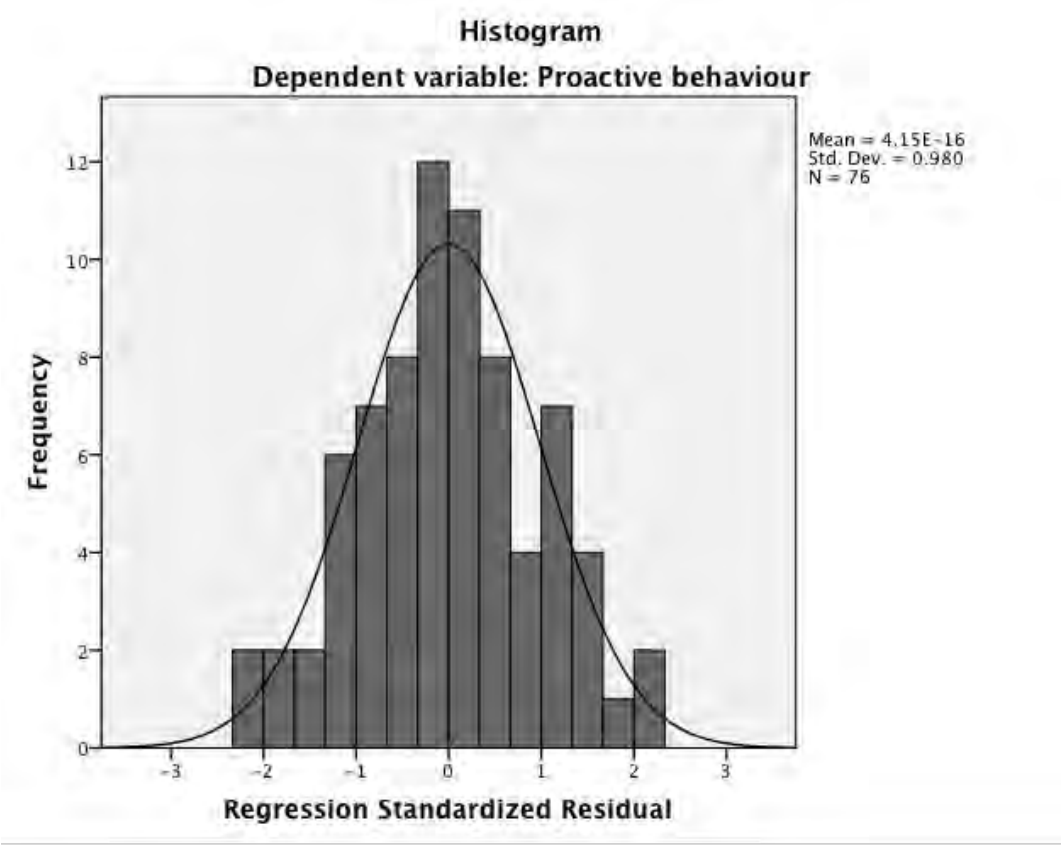


Figure H4. Histogram showing frequency of standardised residuals for proactive behaviour

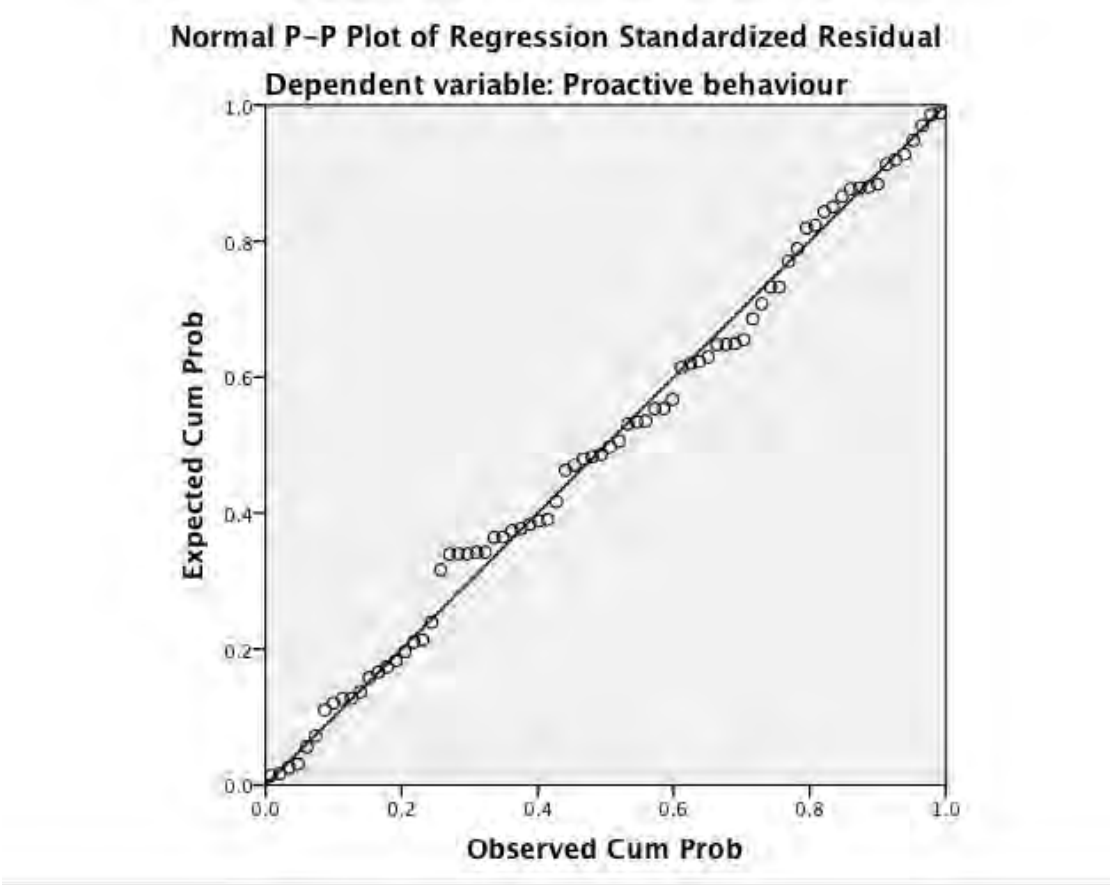


Figure H5. Normal probability plot of regression standardised residuals of proactive behaviour

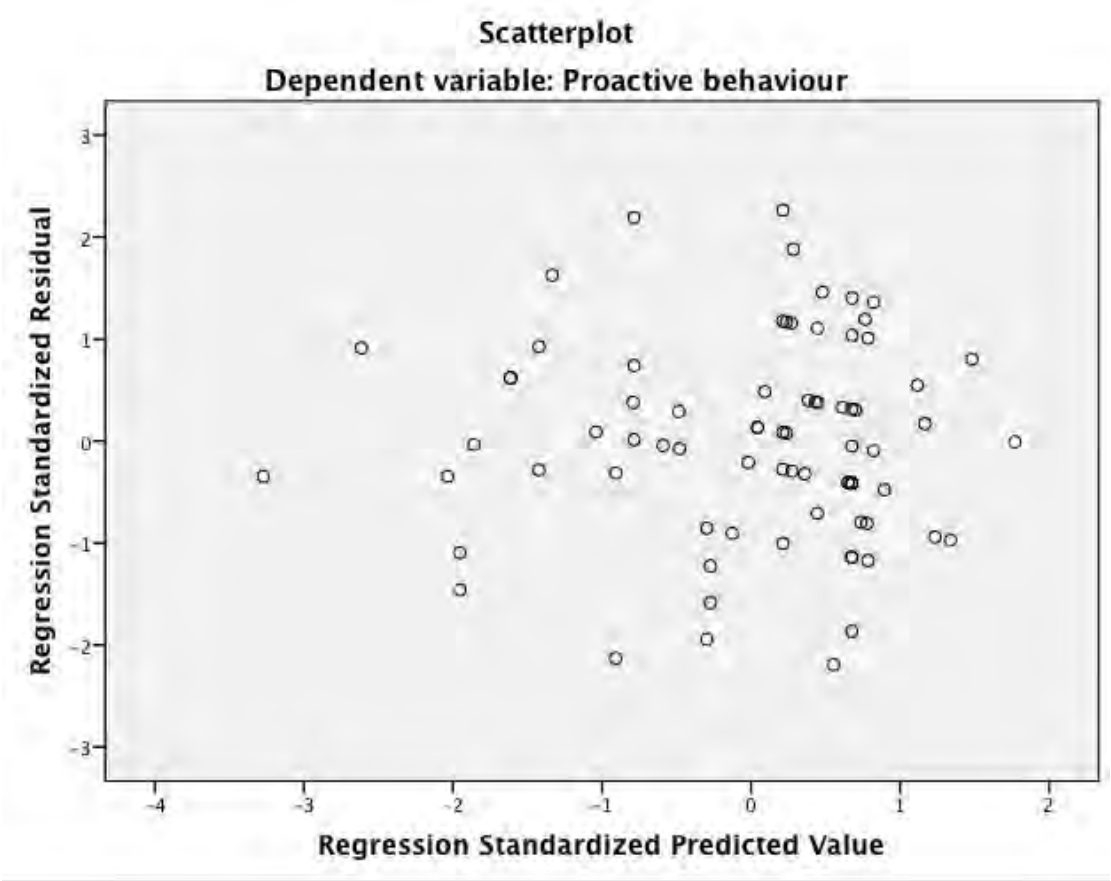


Figure H6. Scatterplot of regression standardised residuals against standardised predicted values of proactive behaviour

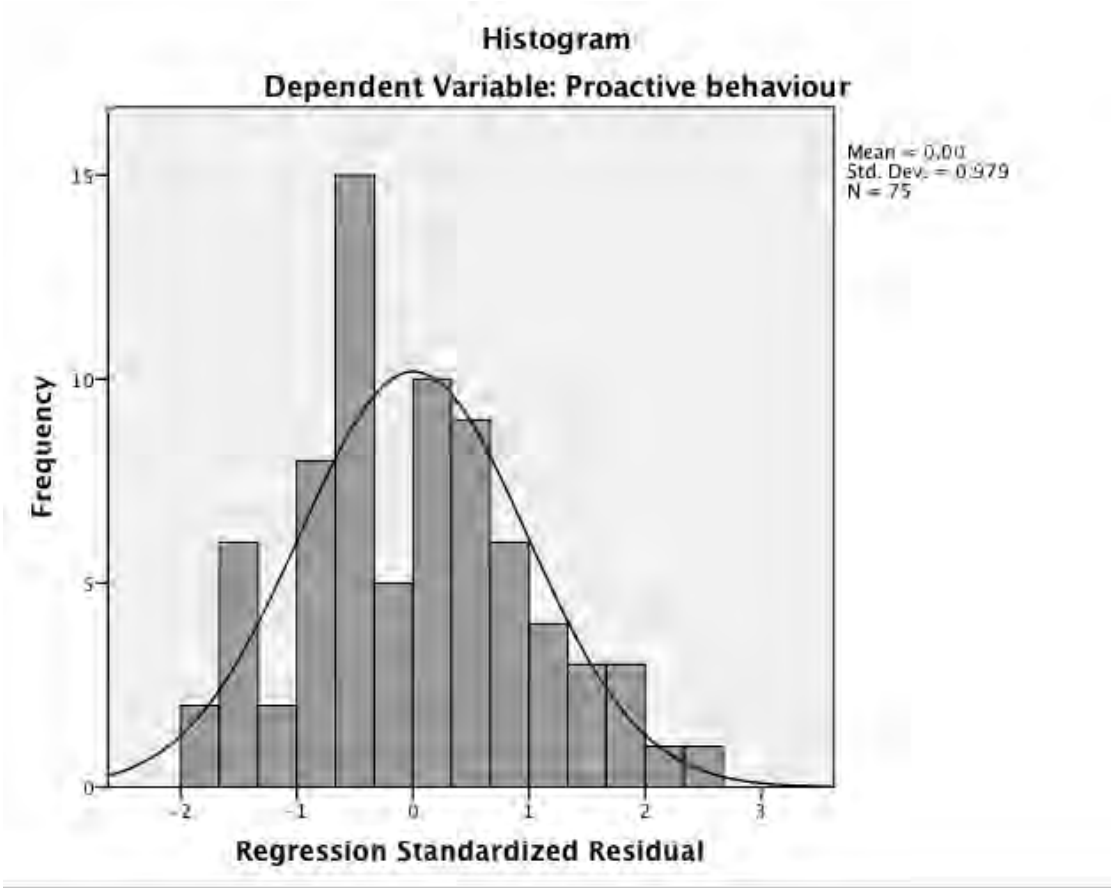


Figure H7. Histogram showing frequency of standardised residuals for proactive behaviour

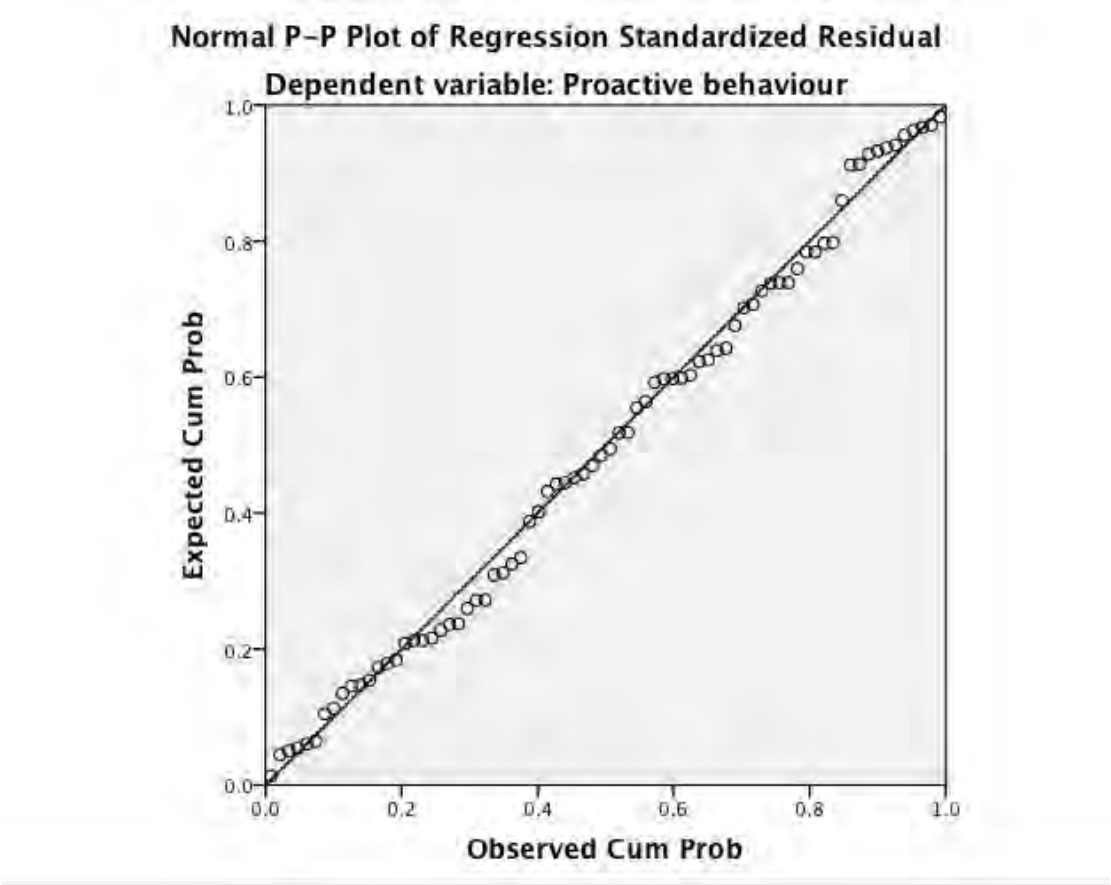


Figure H8. Normal probability plot of regression standardised residuals of proactive behaviour

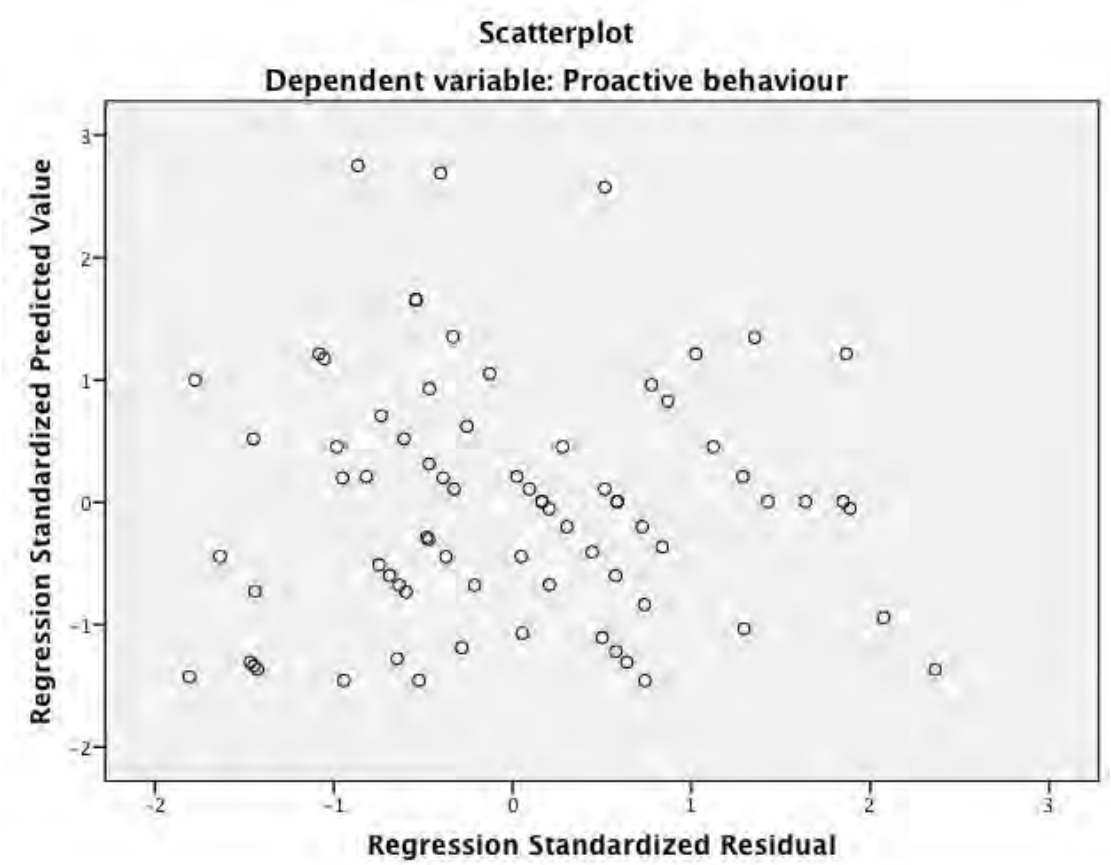


Figure H9. Scatterplot of regression standardised residuals against standardised predicted values of proactive behaviour

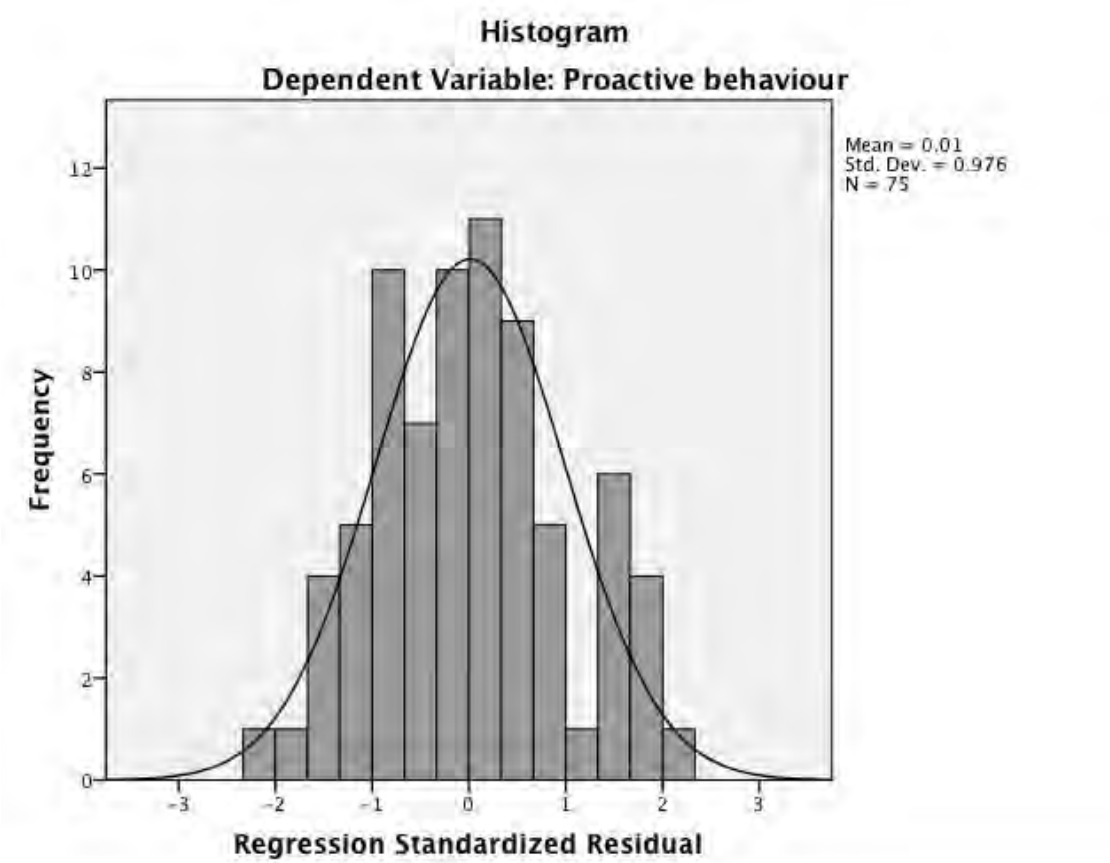


Figure H10. Histogram showing frequency of standardised residuals for proactive behaviour

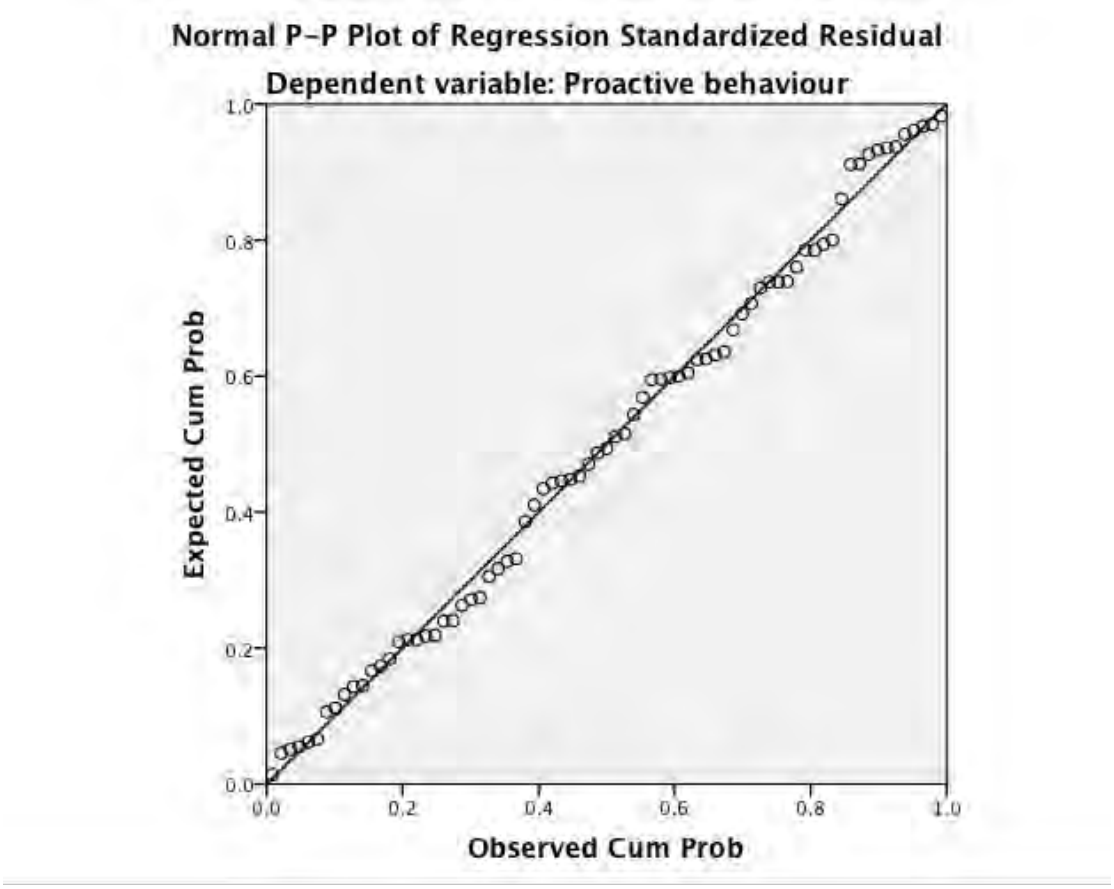


Figure H11. Normal probability plot of regression standardised residuals of proactive behaviour

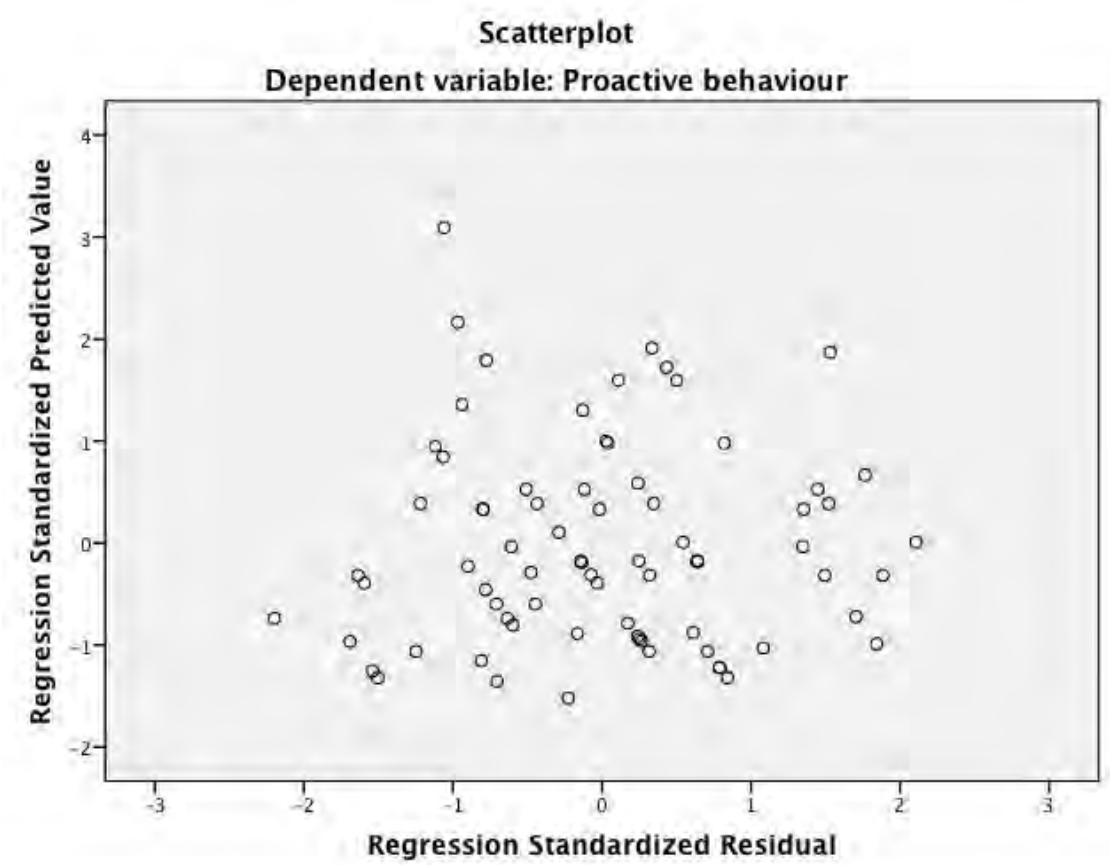


Figure H12. Scatterplot of regression standardised residuals against standardised predicted values of proactive behaviour

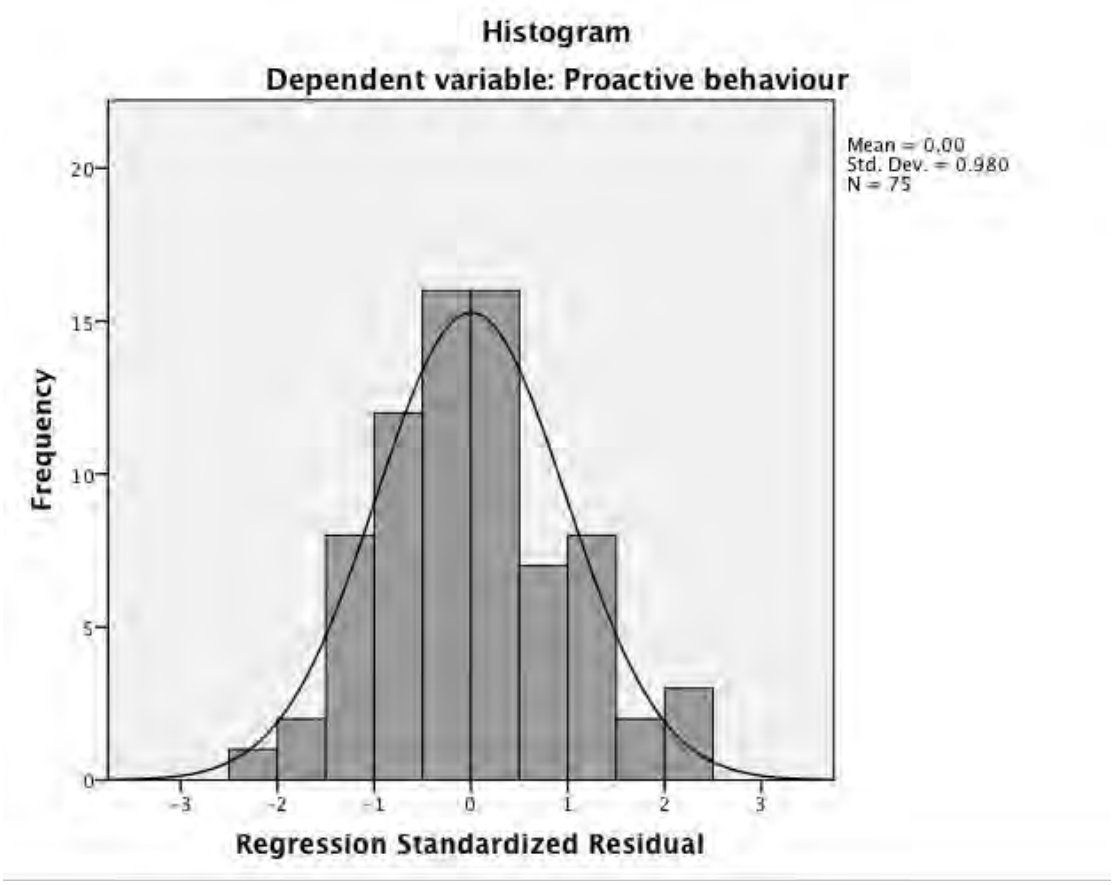


Figure H13. Histogram showing frequency of standardised residuals for proactive behaviour

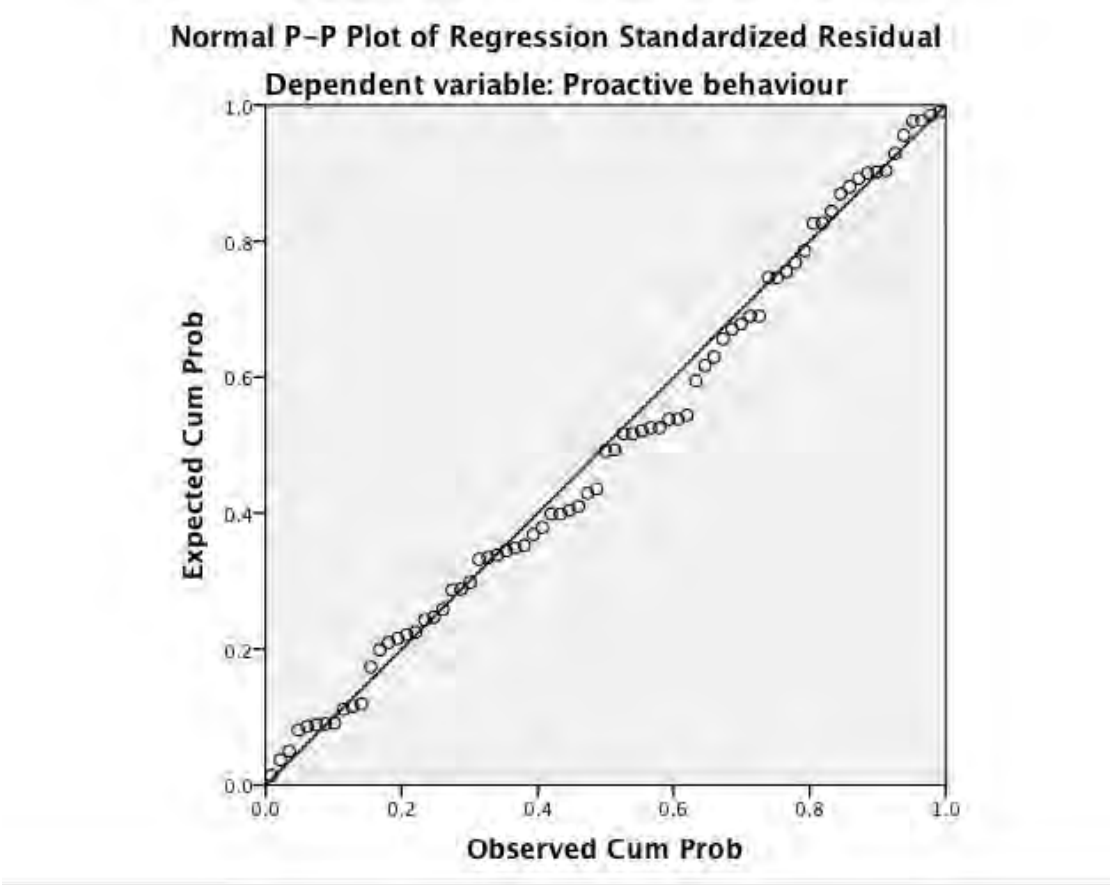


Figure H14. Normal probability plot of regression standardised residuals of proactive behaviour

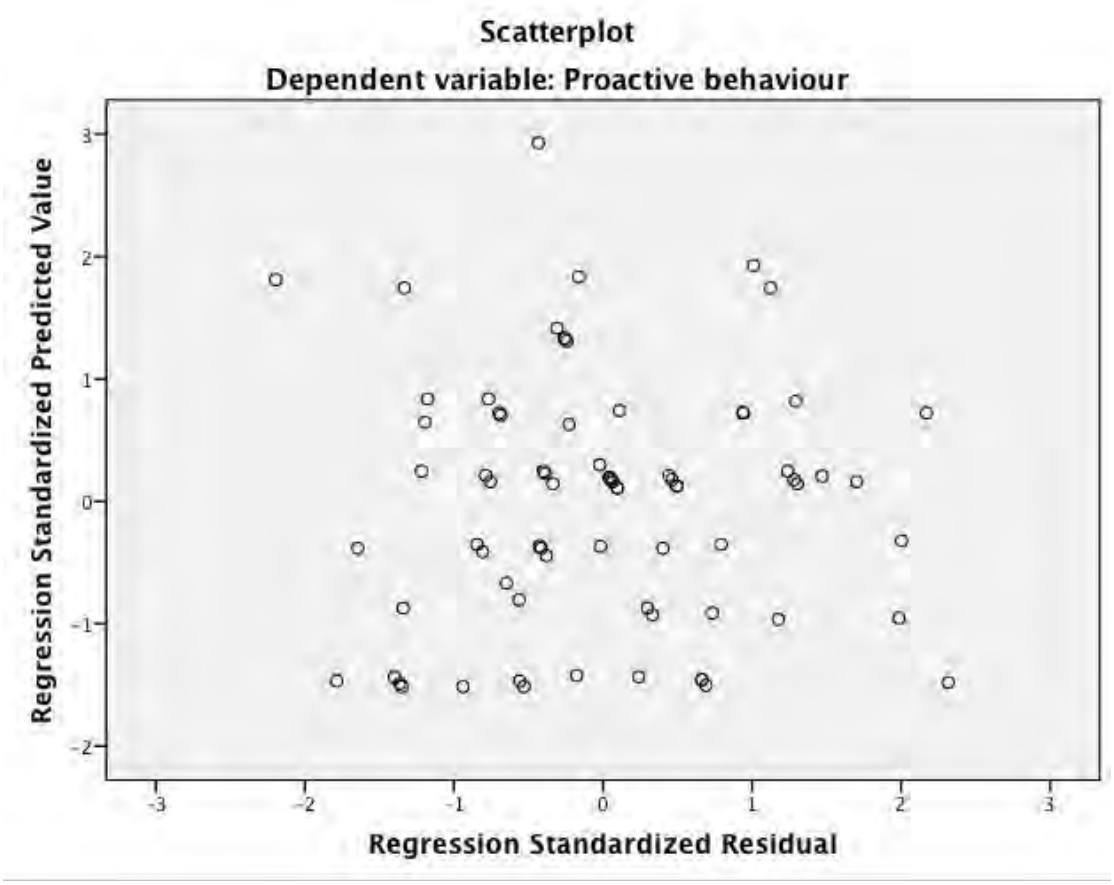


Figure H15. Scatterplot of regression standardised residuals against standardised predicted values of proactive behaviour

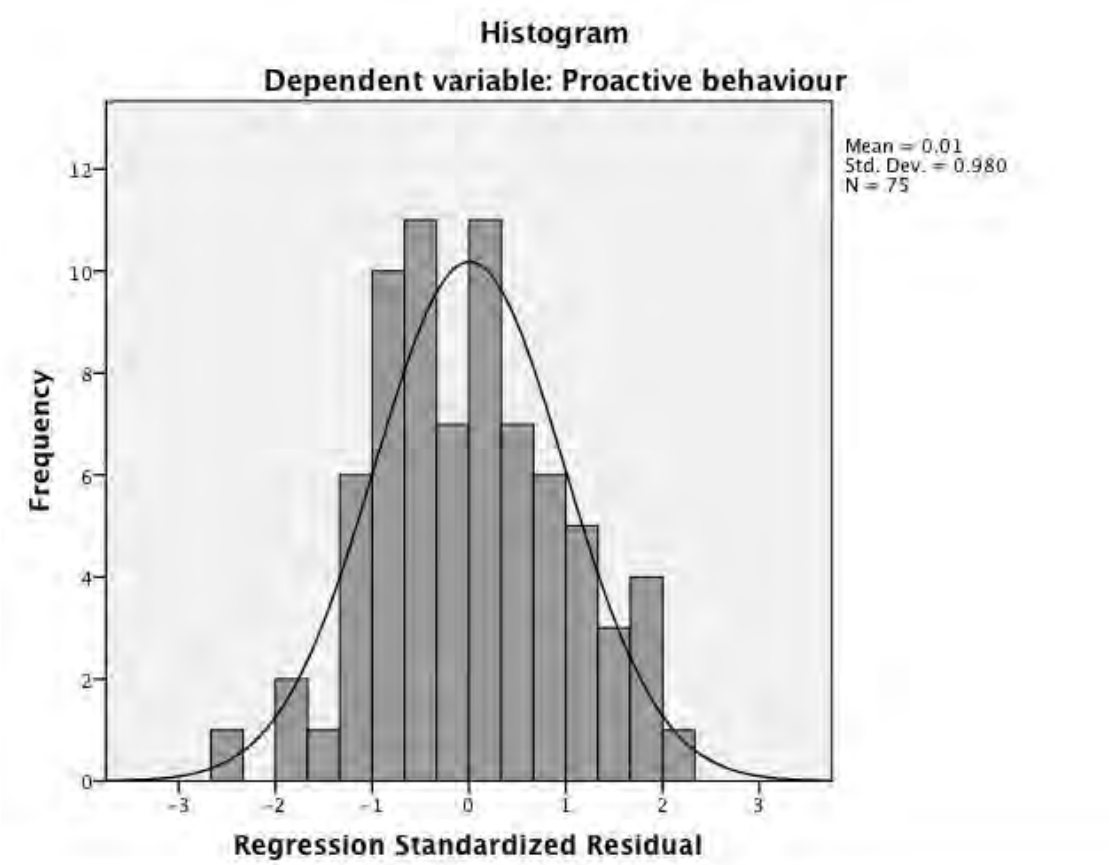


Figure H16. Histogram showing frequency of standardised residuals for proactive behaviour

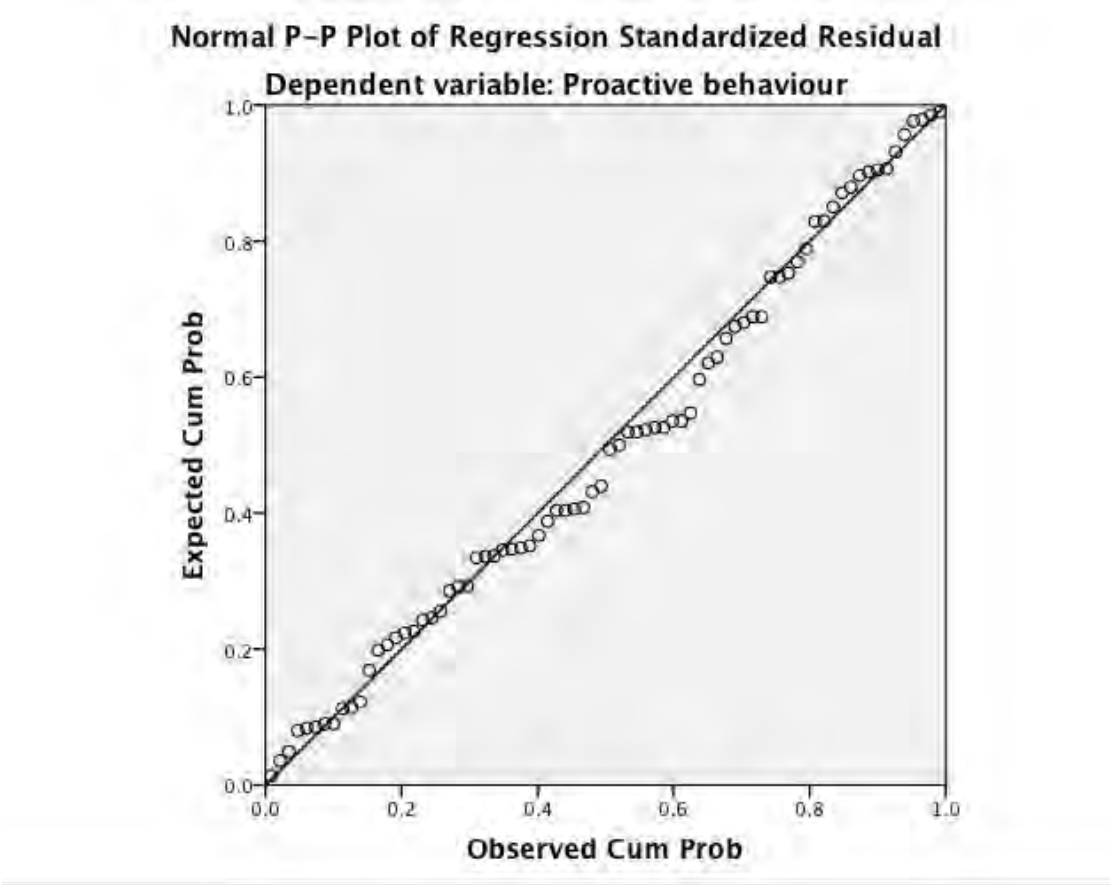


Figure H17. Normal probability plot of regression standardised residuals of proactive behaviour

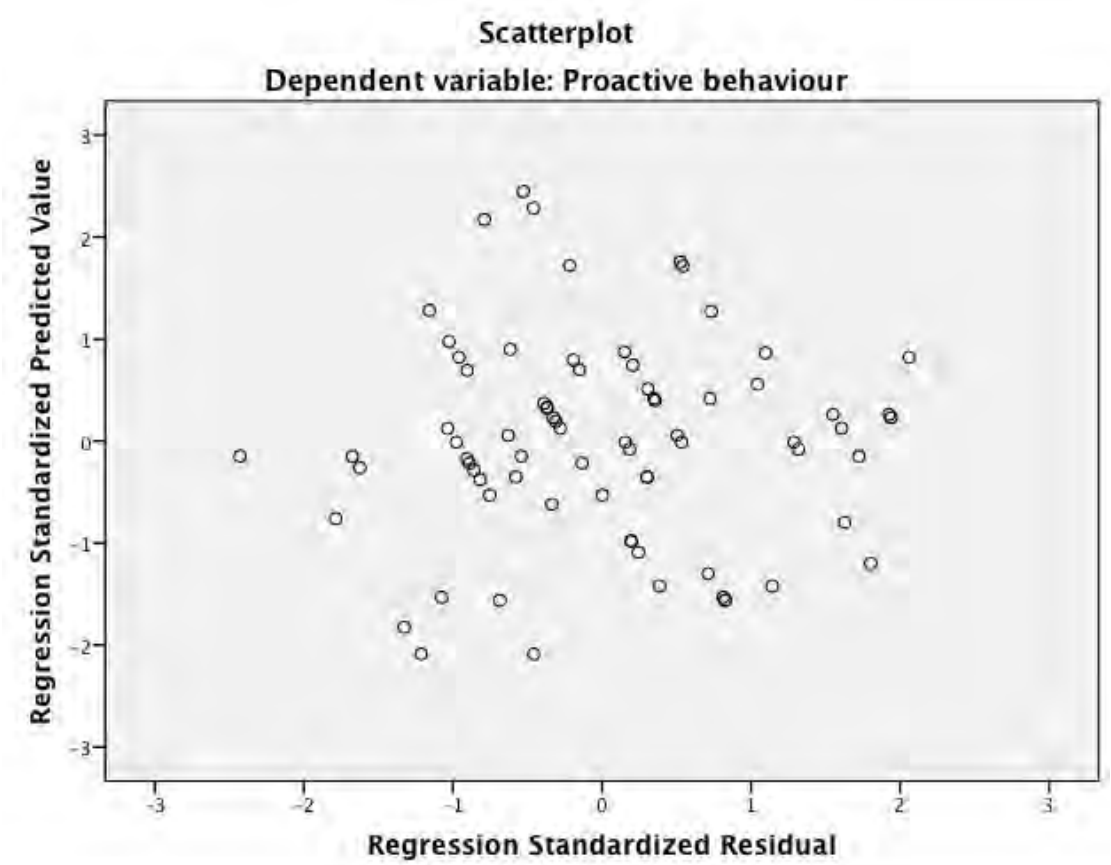


Figure H18. Scatterplot of regression standardised residuals against standardised predicted values of proactive behaviour

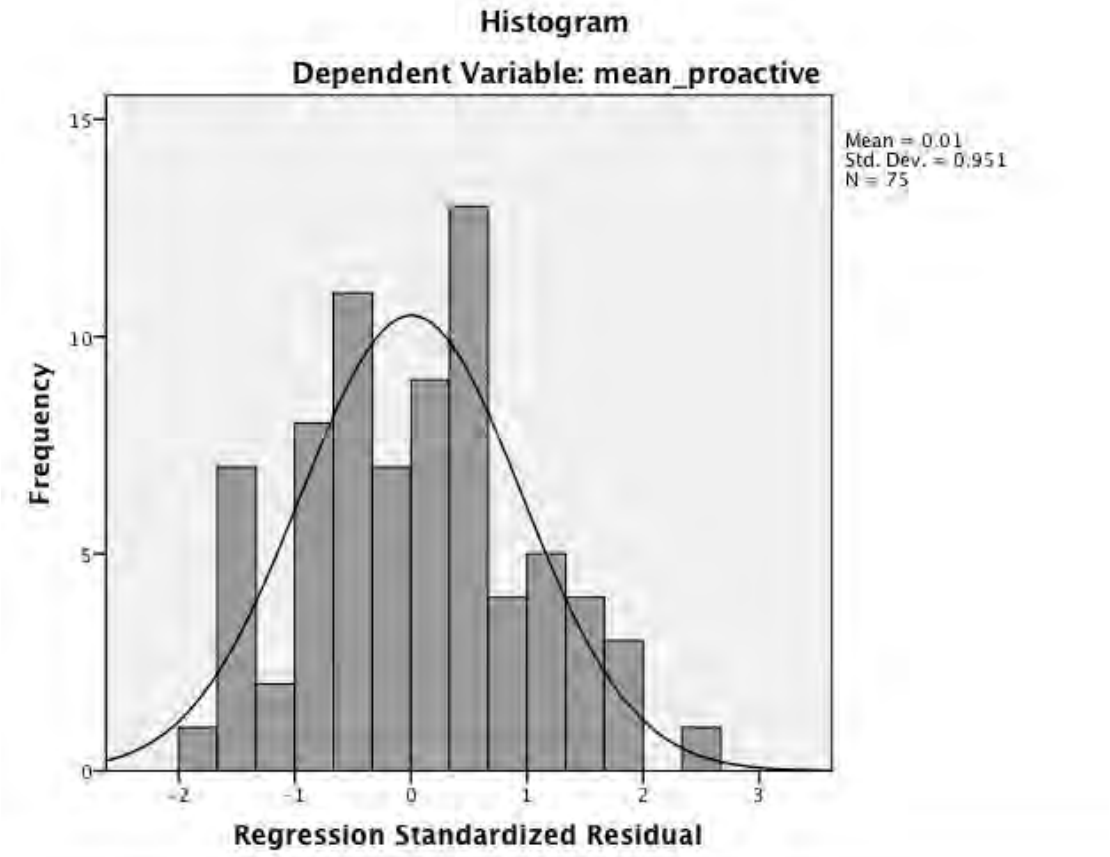


Figure H19. Histogram showing frequency of standardised residuals for proactive behaviour

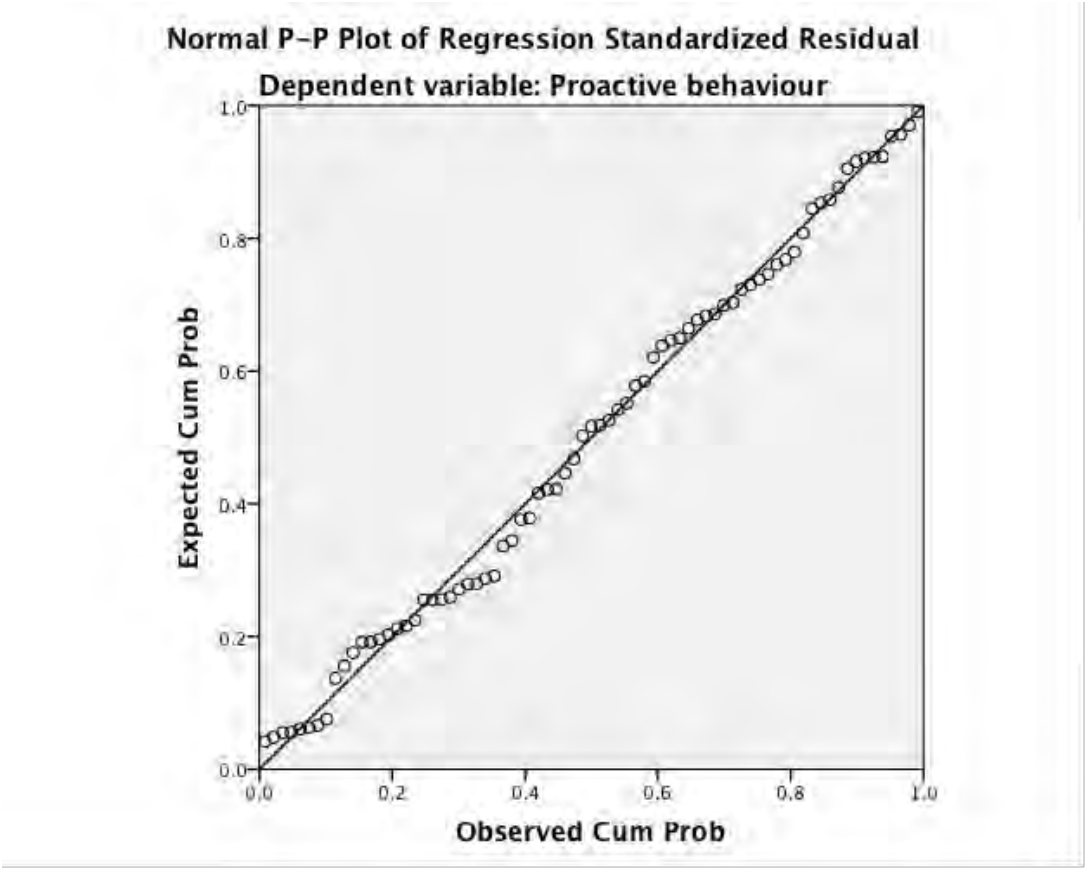


Figure H20. Normal probability plot of regression standardised residuals of proactive behaviour

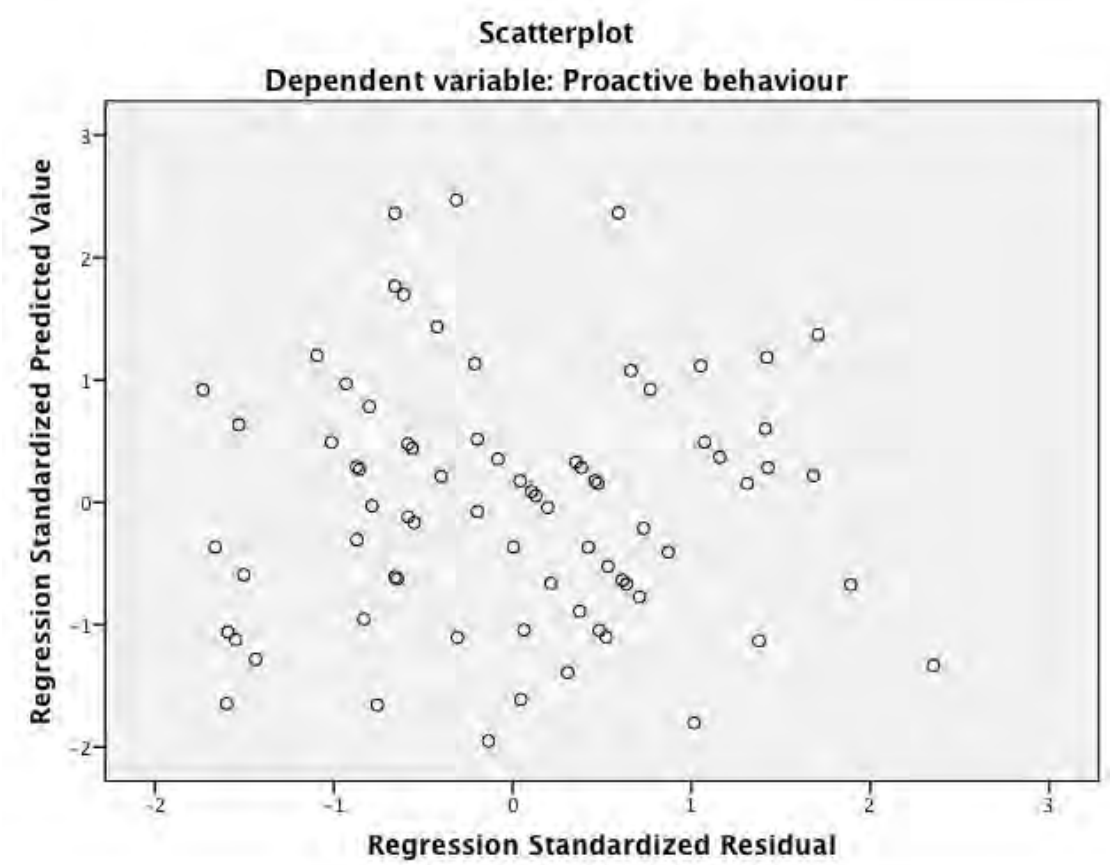


Figure H21. Scatterplot of regression standardised residuals against standardised predicted values of proactive behaviour

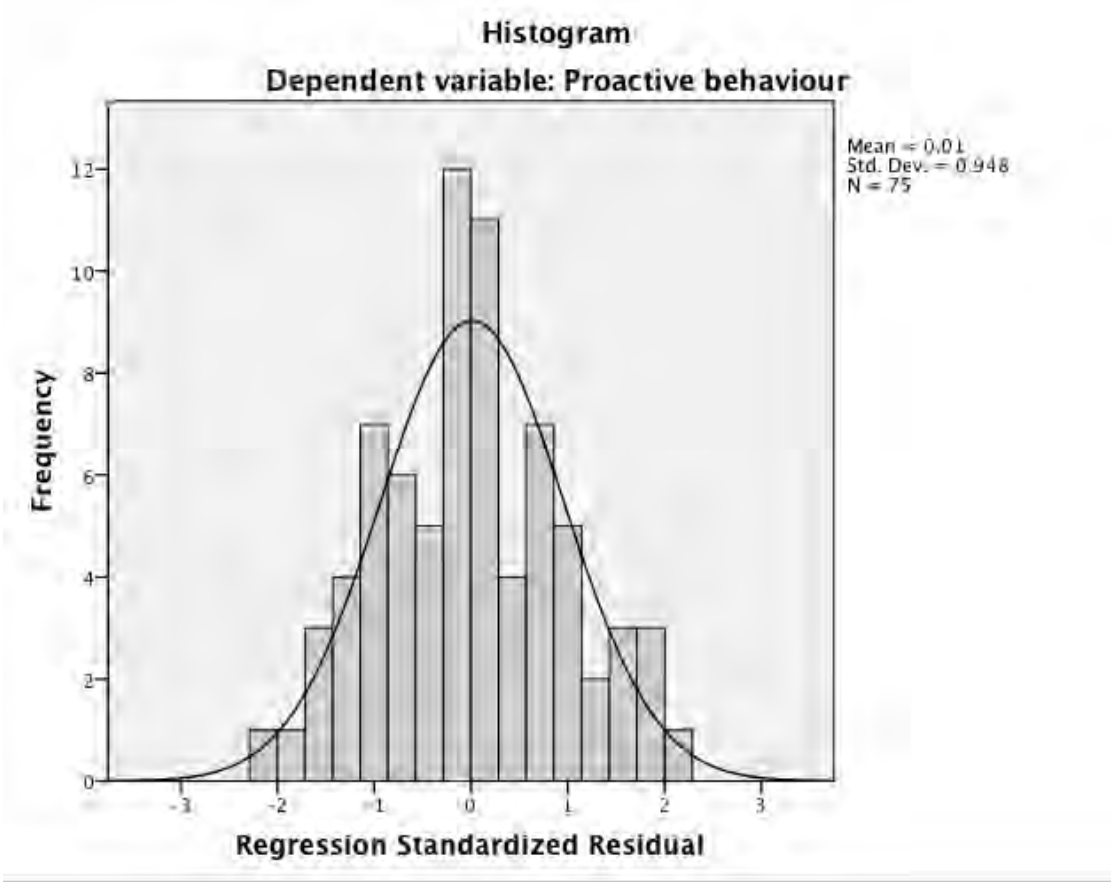


Figure H22. Histogram showing frequency of standardised residuals for proactive behaviour

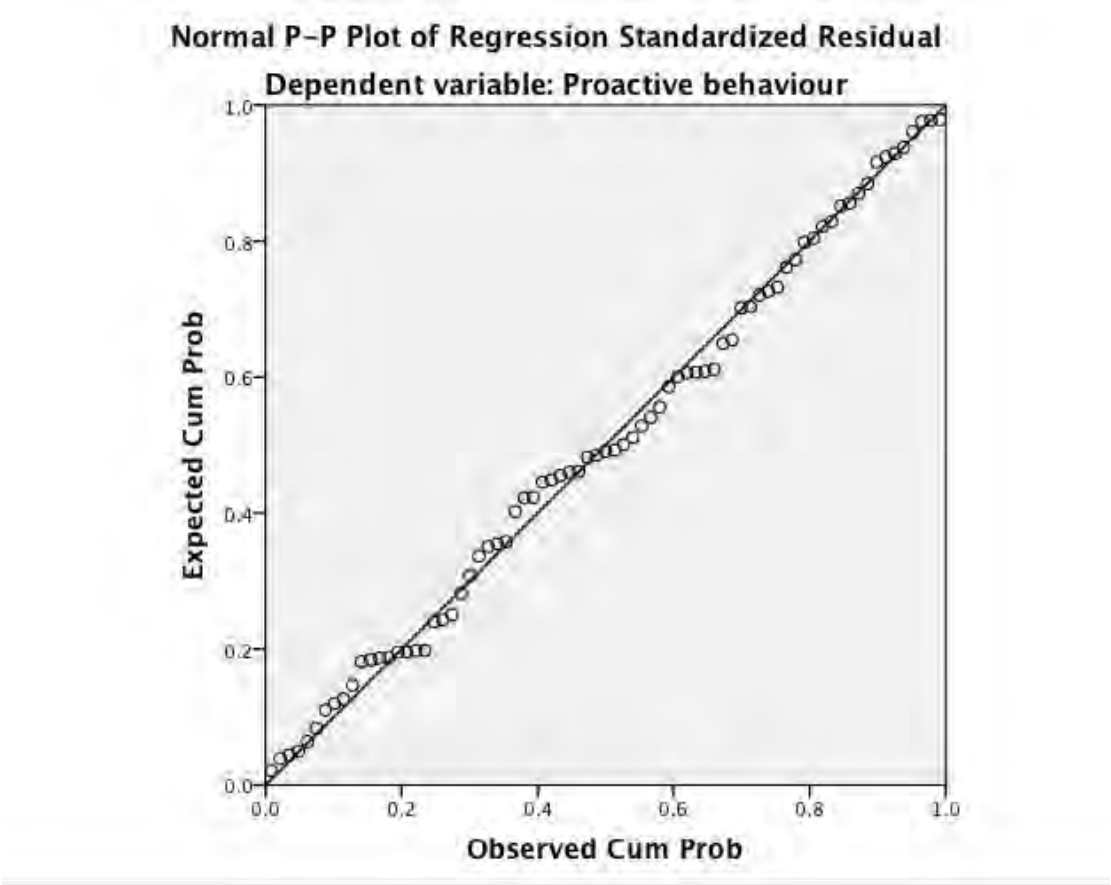


Figure H23. Normal probability plot of regression standardised residuals of proactive behaviour

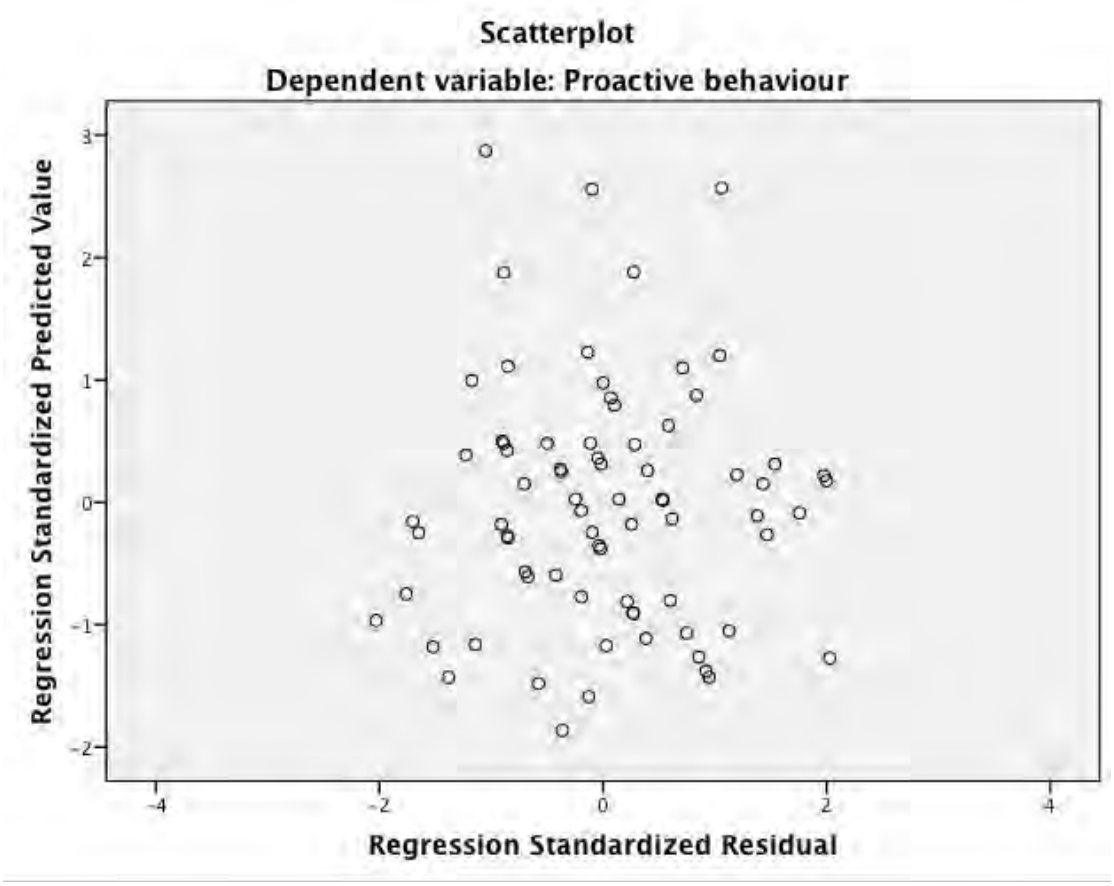


Figure H24. Scatterplot of regression standardised residuals against standardised predicted values of proactive behaviour

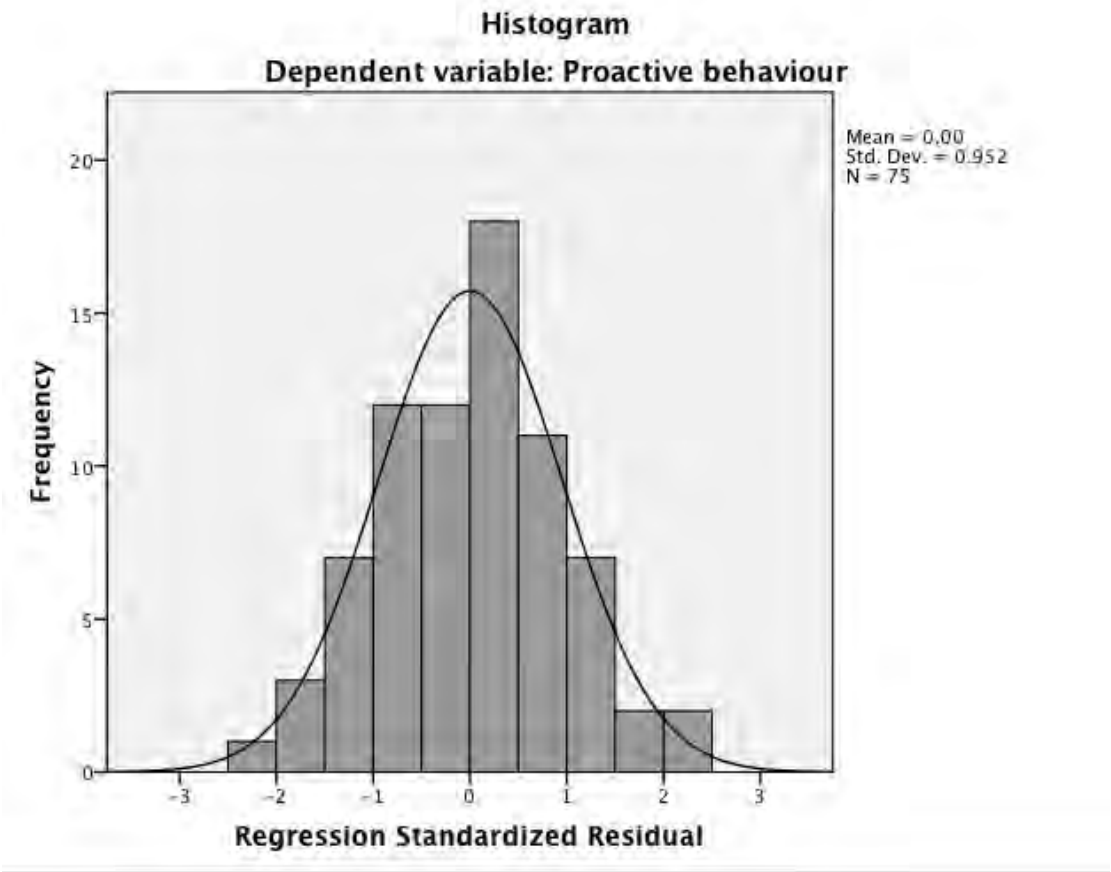


Figure H25. Histogram showing frequency of standardised residuals for proactive behaviour

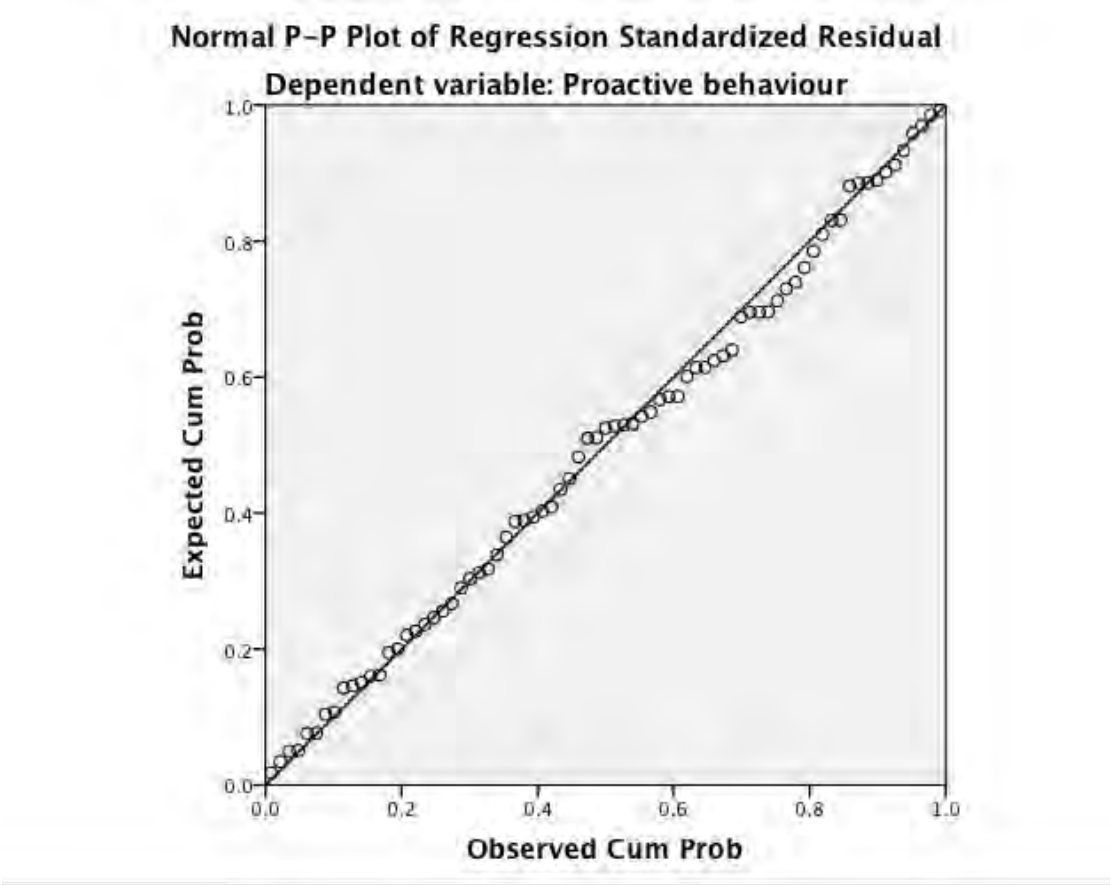


Figure H26. Normal probability plot of regression standardised residuals of proactive behaviour

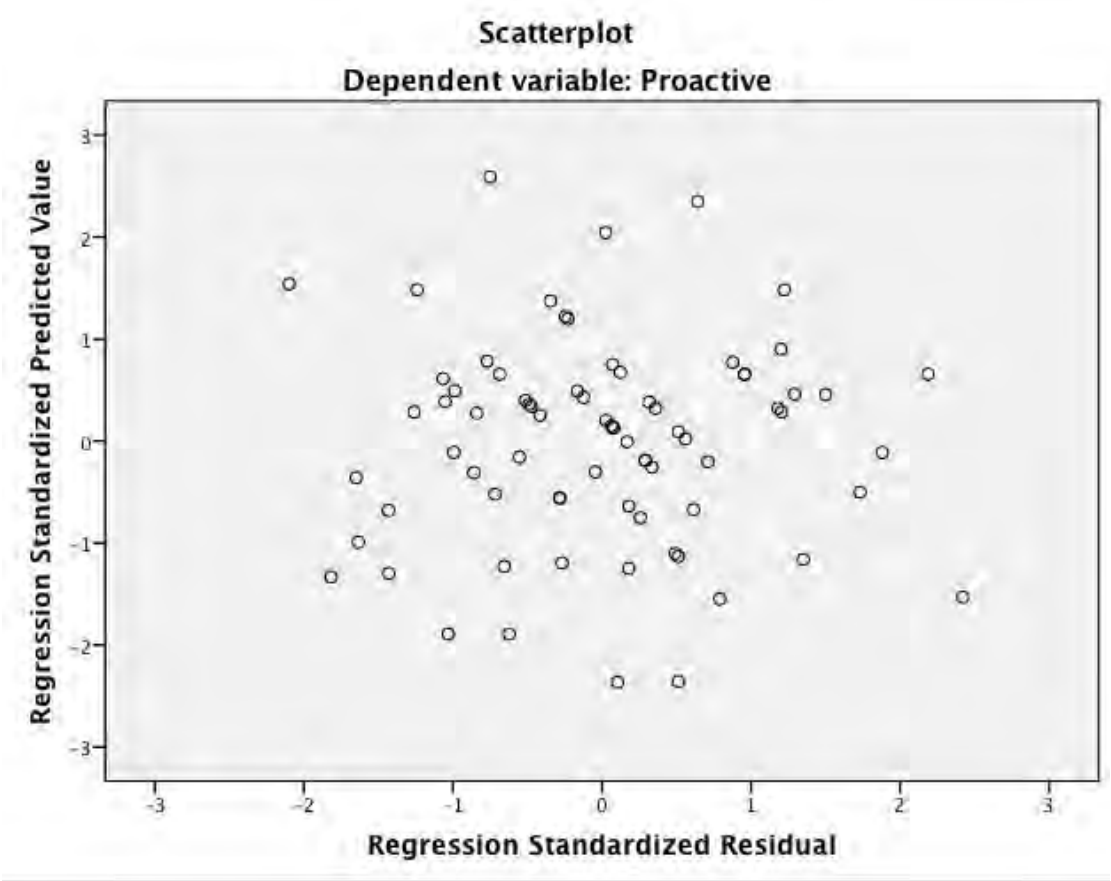


Figure H27. Scatterplot of regression standardised residuals against standardised predicted values of proactive behaviour

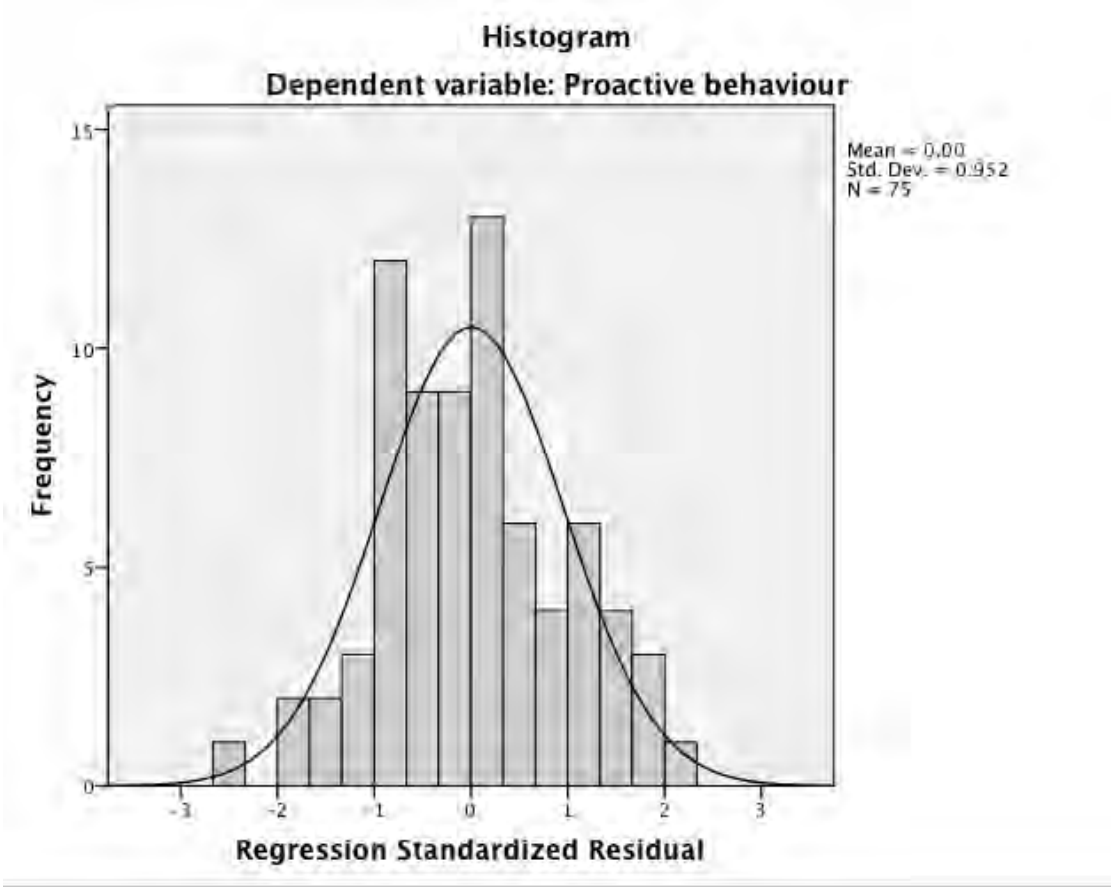


Figure H28. Histogram showing frequency of standardised residuals for proactive behaviour

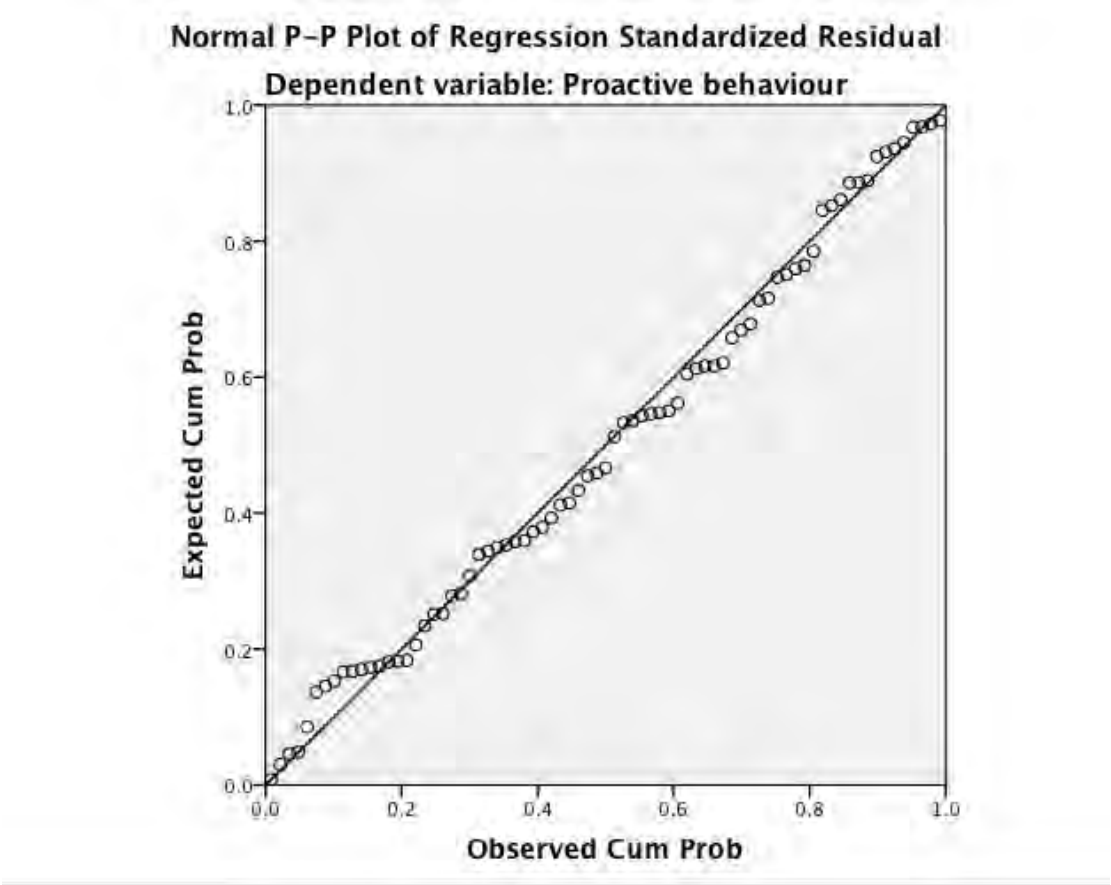


Figure H29. Normal probability plot of regression standardised residuals of proactive behaviour

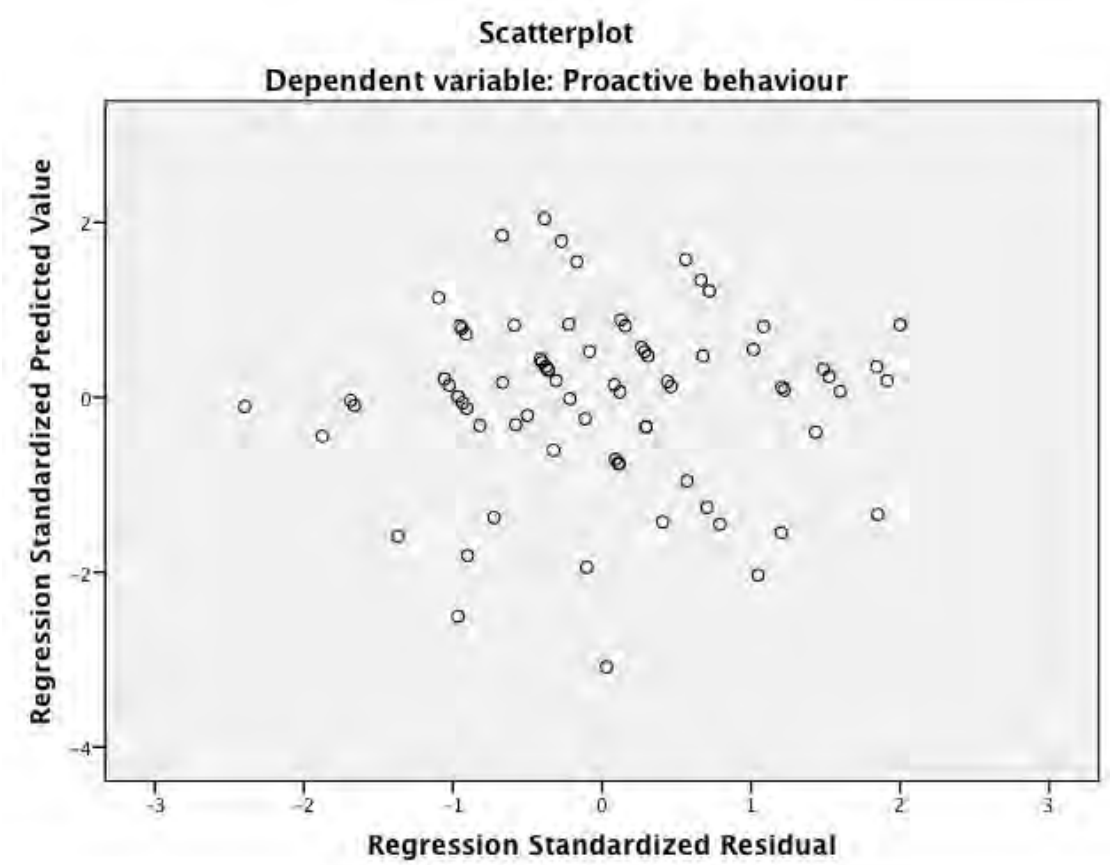


Figure H30. Scatterplot of regression standardised residuals against standardised predicted values of proactive behaviour